STATE WASTE SERVICES (NSW) PTY LTD

ENVIRONMENTAL IMPACT STATEMENT
STATE WASTE SERVICES (NSW) PTY LTD
9 KENOMA PLACE ARNDELL PARK

Prepared for: State Waste Services (NSW) Pty Ltd
The Secretary, Department of Planning and Environment

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Reviewed by: Kieran Horkan

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This Environmental Impact Statement was prepared by Nicolas Israel – Bachelor in Mechanical Engineering and Postgraduate Degree in Mechanical Engineering – Member of the Institute of Engineers Australia and the Environmental Institute of Australia & New Zealand

I certify that I have prepared the contents of this Environmental Impact Statement and to the best of my knowledge:

- it is in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000,
- contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates, and
- the information contained in the statement is neither false nor misleading.

Nicolas Israel MIEAust MEIANZ PMEng
December 2018

The EIS was prepared with input from the following Companies/People:

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- Kieran Horkan, Scientific Director - Master in Marine Biology
- Chris Liney, General Manager State Waste Services (NSW) Pty Ltd
- Stimson & Baker Planning
- Stanbury Traffic Planning
- Benbow Environmental Pty Ltd
- Australian Workplace Management

The EIS was prepared by researching relevant resources from the following Government and non-Government Organisations:

- ✓ Blacktown City Council
- ✓ Department of Planning and Environment
- ✓ Environment Protection Authority
- ✓ Sydney Water Corporation
- ✓ Department of Primary Industries
- ✓ NSW Health
- ✓ Roads and Maritime Services
- ✓ Google Earth
- ✓ SixMaps

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ABBREVIATIONS & GLOSSARY OF TERMS

Applicant	State Waste Services (NSW) Pty Ltd
Appropriate Regulatory Authority (ARA)	Generally, the appropriate regulatory authority is the EPA for licensed premises and local Council for non-licensed premises. There are exceptions to this definition as stated in Clause 6 of the POEO Act.
AS	Australian Standard
BCA	Building Code of Australia
Council	Blacktown City Council
DCP	Development Control Plan
Department	Department of Planning and Environment
DG	Dangerous Goods
DP	Deposited Plan
EIS	Environmental Impact Statement
EPA	NSW Environment Protection Authority
EP&A	Environmental Planning & Assessment Act 1979
EPL	Environment Protection Licence
Environment	As defined in the POEO Act, *"environment" means components of the earth, including:* *(a) land, air and water, and* *(b) any layer of the atmosphere, and* *(c) any organic or inorganic matter and any living organism, and* *(d) human-made or modified structures and areas,* *and includes interacting natural ecosystems that include components referred to in paragraphs (a)-(c).*
Harm	As defined in the POEO Act, *"harm" to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution.*
Immediately	Promptly and without delay.
NPfI	NSW Noise Policy for Industry 2017
LEP	Local Environmental Plan
LGA	Local Government Area
Material risk of harm	"Material risk of harm to the environment" is defined under Section 147 of the POEO Act as: *(a) harm to the environment is material if:* *(i) It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or* *(ii) It results in actual or potential loss or property damage of an amount, or amounts in aggregate,*

	exceeding $10,000 (or such other amount as is prescribed by the regulations), and (b) *loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.*
NPI	National Pollutant Inventory
NPWS	National Parks and Wildlife Service
Occupier	As defined under the POEO Act, *"occupier" of premises means the person who has the management or control of the premises.*
POEO Act	Protection of the Environment Operations Act 1997
Pollution	As defined under the POEO Act*, "pollution" means:* *(a) water pollution, or* *(b) air pollution, or* *(c) noise pollution, or* *(d) land pollution.*
Pollution Incident	The *Environmental Guidelines: Preparation of pollution incident response management plans* defines a pollution incident as: "…an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise."
Premises	As defined under the POEO Act*, "premises" includes:* *(a) a building or structure, or* *(b) land or a place (whether enclosed or built on or not), or* *(c) a mobile plant, vehicle, vessel or aircraft.*
Prevention of pollution	Use of processes, practices, materials or products that avoid, reduce or control pollution, which may include recycling, treatment, process changes, control mechanisms, efficient use of resources and material substitution. Note: The potential benefits of prevention of pollution include the reduction of adverse environmental impacts, improved efficiency and reduced costs.
RMS	Roads & Maritime Services
Scheduled activity	"scheduled activity" means an activity listed in Schedule 1 of the POEO Act. Scheduled activities must be licensed under the POEO Act.
Site	9 Kenoma Place, Arndell Park, New South Wales

Spill kit	A set of equipment used to isolate or control an accidental overflow or release of a substance or material.
SWS	State Waste Services (NSW) Pty Ltd which is the operator of the business subject to this application. It is also called applicant.

UNITS OF MEASUREMENT

°C	degree centigrade	(unit of temperature)
dB(A)	A-weighted decibels	(unit of noise)
ha	hectares	(unit of area)
g	gram	(unit of mass)
kg	kilogram	(unit of mass)
kL	kilolitre	(unit of volume)
km	kilometre	(unit of length)
Mt	million tonnes	(unit of mass)
m	metre	(unit of length)
m^2	squared metre	(unit of area)
m^3	cubic meter	(unit of volume)
ODU	odour detection unit	(unit of odour)
OU	odour unit	(unit of odour)
T	Tonne (1000 kg)	(unit of mass)
mg	microgram	(10^{-6} gm – unit of mass)

EXECUTIVE SUMMARY

Introduction

This Environmental Impact Statement (EIS) was prepared on behalf of State Waste Services Pty Ltd (proponent) to support the proposed development which is for a waste management facility located at 9 Kenoma Place, Arndell Park, in the State of New South Wales. The proposal is specifically to increase the processing capacity of medical related waste. This application seeks approval for a processing capacity of 3,000 tonnes per year. No physical works are proposed as part of this application as the business already exists and previously approved by Blacktown City Council (Council) through the Joint Regional Planning Panel, albeit with a lower, 650 tonne per year processing capacity. No additional plant or equipment is required on the site as part of this application. The increase in processing capacity is 3.6 times the original processing capacity. The increased processing capacity proposed would be achieved through extended hours of operation and additional traffic movements throughout the longer days but within the previously approved operation hours.

The nature of waste types to be processed will continue to be medical waste collected from hospitals, medical centres and other similar facilities. We were advised that the increase in processed materials is associated mainly with the closure of similar facilities in NSW and the increase in the generation of such waste due to a general increase in demand for medical related services and procedures, as the population of NSW rises.

The proposed processing capacity triggers the need for consideration as a State Significant Development (SSD). On this basis the Secretary's Environmental Assessment Requirements (SEARs) have been sought from NSW Planning & Environment for the preparation of this Environmental Impact Statement (EIS).

The applicant holds an Environment Protection Licence No 12609 which was issued by the NSW Environment Protection Authority (EPA) on 27 November 2006 and was modified on two (2) occasions for different reasons. The applicant holds another Environment Protection Licence No 20233 which was issued by the EPA on 3 September 2013. Both EPLs are current and valid. Copies of these EPLs are included in **Appendix H**.

The EPL 20233 authorises the applicant to undertake non-thermal treatment of hazardous and other waste as well as store hazardous, restricted solid, liquid, clinical and related waste and asbestos waste. This upper limit of 650 tonnes has not been reached so far and it will remain as such until the approval of the increase is granted. The proposed increase in processing capacity does not alter any of the currently approved operations on site.

The EPL 12609 authorises the applicant to transport both Category 1 and Category 2 trackable wastes.

Site Context

The site is located at 9 Kenoma Place, Arndell Park, is legally described as Lot 14 DP 786328 and is some 1,492m² in area. The site is currently occupied by a building containing 505m^2 in warehouse floor space and some 151m^2 in office floor space. Surrounding land uses are predominantly of an industrial and commercial nature.

Project Description

The proposal is for a waste management facility, specifically processing up to 3,000 tonnes per year of medical waste. No physical works are necessary as part of this application. No additional plant (autoclave, shredders etc) is required as the processing capacity proposed can be achieved through the extended use of existing plant. It is noted that the business already operates on the site, albeit with a lower processing capacity of 650 tonnes per year.

Alternatives Considered

The proponent considered a number of options including relocation and a "*do nothing"* option. However, it has been demonstrated in this submission that the subject site and existing infrastructure has ample capacity within which the proposed processing capacity sought can be processed. To relocate completely would be financially unviable, and to "*do nothing"* would not realise the full potential of the existing facility and its infrastructure.

The key benefits of the subject site include:

- Central location in the Sydney Metropolitan area.
- Existing industrial zoning.
- Access to arterial roads, Highways and Motorways network.
- Low amenity impacts including, water, soil, noise, air quality and visual impacts.
- No site disturbance required such as demolition or construction activities.

The proposed development is considered to meet the requirements with regard to economic, environmental and social matters.

EIS Requirements and Scope

NSW Planning & Environment issued Secretary's Environmental Assessment Requirements on 1 December 2014 with the key issues included in **Table 0-1** being identified as needing consideration:

Table 0-1: Key Issues raised in the SEARs

Key Issue	Requirements for Consideration
Strategic and Statutory Context	• Detailed justification for the proposal and suitability of the site and proposed transport routes; and • Demonstration that the proposal is generally consistent with all relevant planning strategies, environmental planning instruments, development control plans (DCPs), and justification for any inconsistencies.
Waste Management	• details of how the material will be collected, managed and disposed of; • details of the quantities and classification of waste to be generated on site; • demonstration that the proposed handling, labelling, storage and disposal of clinical and related waste is consistent with *NSW Health's Waste Management Guidelines for Health Care Facilities, August 1998;* • evidence that the expansion of the existing clinical and medical waste facility fulfils the objectives of the *NSW Waste Avoidance and Resource Recovery Strategy 2014-21;* and • evidence that NSW Health supports the method of treatment of the clinical waste.
Hazards and Risk	• a preliminary risk screening completed in accordance with *the State Environmental Planning Policy No.*33 *Hazardous and Offensive Development* and *Applying SEPP 33* (DOP, 2011), with a clear indication of class, quantity and location of all dangerous and hazardous materials associated with the development; and • should the preliminary screening indicate that the project is potentially hazardous, a Preliminary Hazards Analysis (PHA) must be prepared in accordance with the *Hazardous Industry Planning Advisory Paper No.6 - Guidelines for Hazards Analysis (COP, 2011) and Multi-Level Risk Assessment* (DOP, 2011).
Soils and Water	• details of how water will be managed, such as, stormwater and flooding; • details of water requirements including water supply; and • details of leachate collection and management.
Air Quality & Odour	• description of all potential odour sources and predicted odour emissions from the construction and operation of the clinical and quarantine waste facility; • an air quality assessment of all potential air quality and odour impacts from the development, including details of air quality and odour impacts on private properties, in accordance with relevant Environment Protection Authority guidelines; • details of mitigation, management and monitoring measures for preventing and/or minimising both point and fugitive emissions; and • an assessment of the effectiveness of the proposed air quality and odour mitigation measures.

Key Issue	Requirements for Consideration
Noise and Vibration	• a description of all potential noise sources such as construction, operational, on and off-site trafficnoise; • a noise impact assessment including a cumulative noise impact assessment in accordance with relevant Environment Protection Authority guidelines; and • details of noise mitigation, management and monitoring measures
Traffic and Transport	• details of all traffic and transport demands likely to be generated during construction and operation, including confirmation of whether any additional car parking is required to ensure compliance with *the* Bl*acktown Development Control Plan 2006;* • an assessment of predicted impacts on road safety and the capacity of the road network to accommodate the project; and • an assessment of likely toxicity levels of loads transported on arterial and local roads to and from the site, and an incident management strategy in the event that an incident occurs during transportation
Cumulative Impacts	Particularly in relation to air, noise and traffic associated with other nearby industrial or commercial operations.
Plans and Documents	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the *Environmental Planning and Assessment Regulation 2000.* Those documents should be included as part of the EIS rather than as separate documents.
Consultation	During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with: • Blacktown City Council; • Environmental Protection Authority; • NSW Health; and • Roads and Maritime Services. The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.
List of Approvals and Licences	The EIS should include a list of all existing approvals and licences the activities currently operate under
Visual	Impact assessment at private receptors and public vantage points.
Heritage	Aboriginal and non-Aboriginal cultural heritage

These matters and several others that were raised by other Government Departments have been addressed within the body of this EIS and/or in the accompanying reports.

An extension to the SEARs was issued by the Department on 30 November 2016 with the original SEARs considered remaining valid. Another extension of the SEARs was issued again by the Department on 16 January 2018. New requirements were included in this extension in

line with the Department's new requirements for similar proposals. These requirements have also been addressed in this EIS.

Planning and Legislative Framework

A range of Federal and State legislation, as well as local environmental planning instruments, have been considered in the preparation of this development proposal. The proposal is considered to be satisfactory in the context of the legislative environment within which it sits, on the basis that:

- The proposal is permissible in the land zone it is situated in.
- The objectives of the land zone are satisfied.
- The range of applicable State Environmental Planning Policies has been considered.
- Strategic documents that apply to the locality and wider region have identified that the proposed use is consistent with the strategic context of the area.
- On a micro scale, the proposed development can satisfy the relevant provisions of the Building Code of Australia and applicable Australian Standards.

Environmental Impact Assessment

An assessment has been undertaken against the relevant planning controls and policies. Additionally, a number of independent consultants have been engaged to specifically consider certain aspects of the proposal. As a result, the proposed development complies with the relevant controls and it is considered that appropriate mitigation measures can be put in place to minimise any identified risks. It is noted that the application is minor in nature, with very minimal impacts. Mitigation measures that could be required are quite minimal.
The proposed development is considered acceptable in a legislative sense.

Section 6 includes a comprehensive environmental impact assessment of all relevant aspects.

Justification for the Proposed Development

Detailed consideration of the environmental impacts of the proposal has been undertaken in the environmental impact assessment process and in the preparation of the EIS. In assessing the impacts of the proposed development, consideration has been given to social, economic and environmental matters.

As a result, the proposed development is not considered to represent an environmental risk, or a development that might be out of context with the surrounding locality.

There is increasing demand for capacity to process medical waste in the Sydney area and this proposal will contribute to meeting that demand.

Section 9 provides comprehensive list of justifications for the proposed increase in processing capacity in addition to addressing the Ecologically Sustainable Development (ESD) considerations.

Risk Assessment

A comprehensive risk assessment as well as a Preliminary Hazard Analysis (PHA) has been undertaken to demonstrate that the activities in general do not pose any risk to human health or the environment and in particular the proposed development does not alter the low risk associated with these activities. **Section 6** includes details on the risk assessment aspects and **Appendix D** includes a copy of the revised PHA.

Soils and Land

The land proposed for the development has been developed and used for industrial purposes for over 10 years now. The proposed development will continue to be operated within the same land with no proposed demolition of existing or construction of new structures. The proposed development is the same with the existing approved development with no changes other than the hours of operation but still within the previously approved hours.

Water & Flooding

The assessment of potential impact of the proposed development on both the stormwater and groundwater systems was examined. Similarly the potential of impact of wastewater on the nearby waterways was also considered. However, due to the fact that the activities are undertaken within a fully enclosed building and on a concreted, sealed and fully bunded area, the potential impact is nil.

The site is not within any flood prone Zone in accordance with Blacktown City Council Local Environmental Plan 2015 (BLEP).

The status of the groundwater will not be affected by the proposed development since the groundwater is not altered or disturbed by any activity associated with the proposed development. All activities are undertaken above ground and on concreted and sealed ground.

No adverse impact on the stormwater system or any waterway is likely to eventuate as a result of the proposed development provided that the existing mitigation measures are maintained. **Section 6** includes detailed information regarding this aspect.

Flooding aspects are also addressed in **Section 6**.

Biodiversity (Flora and Fauna)

Despite the fact that the site was subjected to construction and upgrading works more than 10 years ago as part of approved development by Blacktown City Council, a brief consideration of the potential existence of any flora and fauna within or in the vicinity of the development site was considered. No fauna or flora impact was found due to the proposed development.

Aboriginal and Cultural Heritage

Based on research of both BLEP and The Office of Environment and Heritage, no items of Aboriginal or European cultural heritage were identified or found within or adjacent to the area subject to the development. **Section 6** includes detailed information regarding this aspect.

Noise

The site is located within an existing Industrial Area. The proposal would not introduce new noise sources to the local area or it is expected to reduce the acoustical amenity of the nearby area. It is expected the noise level contribution from the proposal would be considered insignificant when compared to the existing levels of industrial noises including those of traffic and transport noise from the surrounding roads and operations at the Arndell Park Industrial Estate.

Air Quality

A comprehensive Air Quality Impact Assessment (AQIA) was undertaken by qualified consultants in accordance with current NSW legislation, policies and guidelines. The AQIA revealed that the proposed development will comply with current NSW EPA criteria at all identified potential sensitive receptors including residential and commercial/industrial. **Section 6 and Appendix B** include detailed information regarding this aspect.

Traffic and Transport

A comprehensive traffic impact assessment was conducted as part of the preparation of this EIS. In addition a Transport Incident Management Strategy was prepared as required by the Roads and Maritime Services. **Section 6 and Appendix C** include detailed information regarding this aspect.

Public Safety

Since only a small quantity of mostly household grade chemicals will be stored on site and only SWS employees are entering the active working area in addition to the fact that the whole site is segregated from the outside world by concrete walls or gates, the risk for safety to the public is very low. This facility is not open to the public for any activity since raw materials (clinical waste) are collected and transported to the site by the Company's employees or contractors.
Section 6 includes details on the Public Safety aspects.

Resource

We understand that at this stage the site proposed for the development will be used for its intended purpose only. No other resources will be investigated or assessed at this stage. However, if the applicant wishes to investigate other options for the use of site resources, formal assessments will be required as well as relevant approvals and permits. **Section 6** includes details on the Resource aspects.

Waste Management

The waste management aspect for the proposed development is of utmost importance to the proponent since the waste materials received on site are considered raw materials. A consideration has been given to the waste management during the operation stage. Based on this assessment, waste handling is well managed within the site and will continue to be so even after the approval for the increase in processing capacity. **Section 6** includes detailed information regarding this aspect.

Visual Impact

Due to the fact that all loading, unloading and processing activities are undertaken within the fully enclosed building and within an already well established commercial/industrial area, visual impact is considered to be insignificant especially as the building has already been approved by Blacktown City Council.

Rehabilitation

Since there are no proposed civil works including demolition, excavation or construction as part of this development. Therefore, there will be no soil disturbance at any stage during the establishment and operation of the proposed development. Hence,, rehabilitation is not considered to be an issue for this development. **Section 6** includes details associated with the rehabilitation aspects.

Public Notification and Consultation

A range of authorities have been consulted by the DP&E during the preparation of SEARs as well as during the preparation of this application, including Blacktown City Council, NSW Environment Protection Authority and NSW Roads & Maritime Services. This consultation is detailed throughout the SEARs and is addressed in this submission. The responses reflect the relatively minor nature of this application with those authorities either stating they will await receipt of the EIS referral from the Department of Planning and Environment, or having nothing further to add in addition to comments provided at the time of obtaining the SEARs.

Consultation has also been undertaken with nearby commercial and industrial facilities as well as potentially sensitive residential receptors, and this is detailed later in this report.

Consultation outcomes and related documents are included in **Section 8** and **Appendix Q.**

All comments received from the community have been very positive.

Hours of Operations

The applicant has always complied with the hours of operations specified in the existing development consent and the EPL.

The development does not require any changes to these approved hours of operations and the applicant is committed to comply fully with the approved hours.

Conclusion

The proposal is exactly the same with that already approved and the activities remain the same with no changes implied or intended. No additional infrastructure, plant or equipment are required to be installed on site. The only change is the small increase in the number of vehicles and vehicular movements.

The proposed development has been assessed against the requirements of the Blacktown LEP and the relevant State Environmental Planning Policies and is considered to represent a form of development that is acceptable. The proposed development has also been assessed against the requirements included in the SEARs to ensure compliance with the requirements of the State and Local Government Authorities.

The proposal is considered to be permissible within the zone and generally in keeping with the nature of the surrounding industrial environment. The proposal is considered to comply with relevant planning instruments and controls.

The proponent has always acted in good faith in its attempt to comply with all statutory requirements as specified by various government departments. In relation to the proposed development we believe that it will provide potentially positive rather than negative impacts on the environment. In any case, detailed assessments of the potential impacts of the proposed activities show that these activities do not have any adverse impact on human health or the environment.

Furthermore, upon the request from the Department an Independent Audit was undertaken to demonstrate compliance with current statutory instruments and to qualify the current activities baseline. The independent audit confirmed that the activities comply with the requirements of existing statutory instruments including the processing limit of 650 tonnes per year and 96 Sulo bins per day.

Adequate arrangements can be made for the provision of: vehicular access to and from the site, essential utilities, sewerage, waste and drainage. The site is located at a suitable distance from residential receptors and is not anticipated to impact on the surrounding locality. On this basis, the subject site is considered acceptable for the proposed development.

The proposal is considered to result in a positive economic impact and for this and other reasons detailed in this EIS, is therefore in the public interest.

Accordingly, it is recommended that the proposed development be approved.

Nicolas Israel
Director

Kieran Horkan
Scientific Director

1. INTRODUCTION

This Environmental Impact Statement (EIS) has been prepared by National Integrated Creative Solutions (NICS) in support of a waste management facility at 9 Kenoma Place, Arndell Park in western Sydney. The facility will process medical waste only. The application seeks approval for a processing capacity of 3,000 tonnes per year.

It is noted that the business currently operates on the site, albeit with a processing capacity of 650 tonnes per year. The current business was approved by the Joint Regional Planning Panel and it is licenced by the EPA.

The report reviews the relevant environmental planning instruments for the area. An assessment of the potential effects of the proposal has also been undertaken. The EIS is set out as follows:

- **Section 0** provides an "Executive Summary";
- **Section 1** provides an "Introduction";
- **Section 2** describes the project need and alternatives;
- **Section 3** provides details of the site and surrounding environment;
- **Section 4** provides details of the development proposal;
- **Section 5** outlines the planning and legislative framework;
- **Section 6** contains an environmental assessment;
- **Section 7** contains details of the mitigation measures and commitments;
- **Section 8** explains the public notification and consultation actions taken;
- **Section 9** details the justification for the development;
- **Section 10** provides details of the person responsible for the management of the plant
- **Section 11** provides some information on the training of employees and contractors
- **Section 12** provides the conclusions and recommendations.

The proposal is supported by the following information, which is included in the following Appendices:

- **Appendix A** Site Plans and Elevations
- **Appendix B** Air Quality Impact Assessment
- **Appendix C** Traffic Impact Assessment
- **Appendix D** Preliminary Hazard Analysis Report
- **Appendix E** Secretary's Environmental Assessment Requirements & Extension Letters
- **Appendix F** Existing State Waste Services Cleaning Protocol
- **Appendix G** Existing State Waste Development Consent Conditions and Modifications
- **Appendix H** Current State Waste Environment Protection Licences

- **Appendix I** Current State Waste Inspection Reports
- **Appendix J** State Waste Plant Waste Process and Related Documents
- **Appendix K** Current State Waste Water Cycle, Sydney Water Permit & Water Test Results
- **Appendix L** Current State Waste Chemicals SDS and Photos
- **Appendix M** Manufacturers Bondtech Full Autoclave Specifications
- **Appendix N** Independent Audit Report – Australian Workplace Management
- **Appendix O** Samples of Daily, Weekly and Monthly Incoming Clinical Waste
- **Appendix P** Regular Service, Maintenance and Testing Reports for all Vessels, tanks, boiler, etc…
- **Appendix Q** Community and Public Authorities Consultation
- **Appendix R** Autoclave Registration Certification, Destruction Efficiency & Microbiological Testing Results

1.1 BACKGROUND

The proposed development would realise an increase in processing capacity of an existing clinical waste management facility from 650 tonnes per annum to 3,000 tonnes per annum.
The site is zoned *IN1 General Industrial* under *Blacktown Local Environmental Plan 2015* with the proposal being permissible with consent.

However, the proposed activities are exactly the same as those previously approved by Blacktown City Council (Council). No additional infrastructures, plant or equipment will be required to enable the proposed activities to be undertaken. Only a small increase in the number of vehicles and vehicular movements will be required.

Given the proposed processing capacity, the SSD provisions are triggered. On this basis, SEARs have been sought from the NSW Department of Planning & Environment (Department) for the preparation of this EIS.

This report describes the proposed development and subject site in detail and undertakes an assessment of the proposal against the relevant aims, objectives and development provisions of the Blacktown LEP, as well as all other relevant legislation.

1.2 INTRODUCTION TO THE PROPONENT

The proponent is State Waste Services (NSW) Pty Ltd (SWS) with an ABN 90 122 623 170. Based on an ASIC search the Company was established in 2006. SWS supply products and services to meet the strictest infection control standards in the handling, treatment and disposal of clinical waste. SWS clinical waste bins and sharps collectors meet relevant standards, and

SWS clinical waste treatment facility, including its processes, is approved by NSW Health and the Environment Protection Authority.

SWS supply clean, fully lined (double bagged) clinical waste bins that are collected on a tailored schedule and transported to its licenced waste treatment facility. Waste is then treated using state of the art steam sterilisation technology before being shredded and disposed of to landfill in an inert state. SWS focus is on infection control at every stage during the process, protecting the integrity of its clients' accreditation commitments.

The definition of Clinical and Related Waste is extracted from the POEO Act 1997 (and the NSW EPA's Waste Classification Guidelines) as being:

Clinical and related waste means:

- clinical waste
- cytotoxic waste
- pharmaceutical, drug or medicine waste
- sharps waste.

Clinical waste means any waste resulting from medical, nursing, dental, pharmaceutical, skin penetration or other related clinical activity, being waste that has the potential to cause injury, infection or offence, and includes waste containing any of the following:

- human tissue (other than hair, teeth and nails)
- bulk body fluids or blood
- visibly blood-stained body fluids, materials or equipment
- laboratory specimens or cultures
- animal tissue, carcasses or other waste from animals used for medical research

but does not include any such waste that has been treated by a method approved in writing by the Director-General of NSW Health.

SWS can enter into contracts with different research facilities and collect their clinical wastes as defined above.

However, any services that are not included above are offered on a broker basis and they are undertaken by a third party. These materials are transported by SWS vehicles. The transport of these wastes by SWS vehicles is permitted since its vehicles are approved by the EPA to transport both Category 1 and Category 2 Trackable Wastes in accordance with its Environment Protection Licence 12609. Refer to **Appendix H** for a copy of its licence.

At this facility, only Clinical and Related Wastes are processed. No other wastes are processed by SWS.

The proponent collects all clinical and related waste bins from a variety of sources including hospitals, medical centres and other similar facilities using its own employees and vehicles as well as contractors.

All vehicles are fully compliant for the intended use and as stated above the proponent has already an Environment Protection Licence (No 12609) issued by NSW Environment Protection Authority (EPA) to permit the transport of Clinical & Related Waste.

On occasions, very small quantities of materials that are not classified as "Clinical or Related Wastes" as defined in the EPA's Waste Classification Guidelines are found in the collected bins. These materials cannot be processed on site and they are transported to other facilities that can lawfully process them. The quantities of these materials are very small (less than 100kg at any one time). These materials are transported off site within 48 hours from being received. They are all kept in the original bins that are fully lined, double bagged and sealed.

Following receiving comments from various authorities, consultants and the Department, it was determined by the management of SWS that all business related vehicles, when they are not operation be stored at a site in close proximity to the facility rather than within the car park of the facility. This will assist in providing more space for truck manoeuvring.

The proponent's and site's details are provided below.

Physical address:	9 Kenoma Place, Arndell Park NSW 2148
Postal address:	PO Box 7363 Baulkham Hills NSW 2153

Current applicant contact details are:

Phone:	1300 462 720
Website:	statewaste.com.au
Grid reference:	303933E and 6259038N (Middle of site)
(DGA94 – MGA 56)	303933E and 6259062N (Street address)
Zone:	56 (Blacktown LEP 2015)
Elevation:	53 m
Local Government Area:	Blacktown City Council
Land Use Zoning:	IN1 – General Industrial

SWS is an Australian owned and operated company which was established in 2006.

1.3 COMPARISON BETWEEN EXISTING (APPROVED) AND PROPOSED ACTIVITIES

As previously stated, the proposed development is exactly the same as the existing development previously approved by Blacktown City Council via the Joint Regional Planning Panel. The only change to the existing development is the spreading of waste treatment throughout the whole approved operations hours and the small increase in the number of vehicles to be employed for the transport of waste from the sources to the SWS plant.

To give the reader a better understanding of the differences between the existing and proposed development, we have prepared a summary of all potential aspects that may have potential difference under normal expansion of existing developments.

Table 1-1 includes a comparison between existing approved and proposed activities.

Table 1-1: Comparison between Existing (Approved) and Proposed Development

No	Aspect	Development		Change/ Difference
		Existing Approved	Proposed	
1	**Processing Capacity**	650	3000	+2350
2	**Employment**	6	6	Nil on site +2 Contract drivers[a]
3	**Vehicles**	7 Vans 1 SRV 2 MRV	9 Vans 1 SRV 2 MRV	+2 Vans
4	**Hours of operation**	7.00am-7.00pm Monday to Saturday	7.00am-7.00pm Monday to Saturday	Nil
5	**Air Quality + Odours**	insignificant	insignificant	Nil
6	**Noise + Vibration**	Insignificant	Insignificant	Nil
7	**Waste Management**	Well managed	Well managed	Nil
8	**Water** **Wastewater**	Wastewater discharged to Sewer as approved by Sydney Water Corporation	Wastewater will be continue to be discharged to Sewer as approved by Sydney Water Corporation	Nil
	Surface Water	Surface Water is managed inside the fully concreted, sealed and bunded building with no connection to stormwater	Surface Water is managed inside the fully concreted, sealed and bunded building with no connection to stormwater	Nil
	Groundwater	No groundwater impact since the building is fully concreted sealed and bunded	No groundwater impact since the building is fully concreted sealed and bunded	Nil
9	**Soil + Land**	No impact due to a fully concreted, sealed and bunded building as well areas outside the building	No impact due to a fully concreted, sealed and bunded building as well areas outside the building	Nil
10	**Hazards + Risks**	Within existing criteria	Within existing criteria	Nil
11	**Traffic + Transport**	Negligible within the industrial area	Negligible within the industrial area	+22 daily vehicle

No	Aspect	Development		Change/ Difference
		Existing Approved	Proposed	
				movements but with extended working hours of 12 rather than 6-7as well as an extra full day of 12 hours
12	**Visual**	Nil	Nil	Nil
13	**Heritage**	Nil	Nil	Nil
14	**Consultation**	Completed by Blacktown City Council	Completed by both Department of Planning & Environment and proponent	More comprehensive consultation
15	**Cumulative Impact**	Negligible	Negligible	Nil
16	**Infrastructure**	Approved Building and Plant	Approved Building and Plant	Nil
17	**Plans**	Approved by Blacktown City Council	Same plans as approved by Blacktown City Council	Nil

Note [a]: Initially only 2 additional drivers will be contracted. If required at a later stage a third driver could be engaged

1.4 NSW PLANNING & ENVIRONMENT'S SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS AND KEY ISSUES

NSW Planning & Environment issued Secretary's Environmental Assessment Requirements (SEARs) on 1 December 2014 with the key issues included in **Table 1-2** identified as needing consideration.

Table 1-2: Detailed key issues included in the SEARs

Key Issue	Requirement for Consideration
General Requirements the EIS must include**:**	
• an executive summary;	Provided within this document
• a clear description of the previous/existing uses of the site and how these uses operate lawfully under the Environmental Planning and Assessment Act 1979 (EP&A Act), including any reliance on existing use rights and/or planning approvals;	A comprehensive description of the existing uses of the site is provided in **Sections 1, 2 and 3**. These activities are already approved by Blacktown City Council (JRPP) as well as the NSW Environment Protection Authority. The activities are undertaken in accordance with the Development Consent conditions and the Environment Protection Licence.
• a detailed description of the development	A comprehensive description of the development is provided in **Section 4**. The development is exactly the same with the existing approved development
• consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments;	Despite the fact that the proposed development is exactly the same with the existing approved development, all relevant environmental planning instruments were considered and are included in **Section 5**.
• consideration of the issues provided at Attachment 2 (public authority responses)	Matters raised by public authority responses have been addressed in this report and the accompanying consultant reports. Further consultation was undertaken through August 2017 with no further comments being received from the relevant Government Authorities.

Key Issue	Requirement for Consideration
• a risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment including: - a description of the existing environment, using sufficient baseline data - an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes - a description of the measures that will be implemented to avoid, minimise, mitigate and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage significant risks to the environment.	All potential environmental impacts have been considered at different levels of detail depending on the relevance of each aspect of the activities. Description of the existing environment is provided in **Sections 2** and **3** A comprehensive independent audit was completed in November 2018 and confirmed the baseline data to be consistent with the existing approved development and in accordance with existing Development Consents and Environment Protection Authority. Potential impacts have been considered in the accompanying consultant reports and EIS body (**Section 6**). Mitigation measures are proposed where relevant, (**Section 7** of the report) although the minor nature of this proposal and its potential resultant impacts is noted. An Emergency Response Plan (ERP) has been developed and implemented by the management of SWS since the commencement of these activities on site. A Pollution Incident Response Management Plan (PIRMP) has been prepared and approved by the EPA
• a consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS;	Mitigation measures and commitments are detailed in **Section 7** of this report.
• a conclusion justifying the development on economic, social and environmental grounds, including consideration of whether the development is consistent with the objects of the EP&A Act; and	A conclusion is included in **Section12**

Key Issue	Requirement for Consideration
The EIS must also be accompanied by a report from a qualified quantity surveyor providing: • a detailed calculation of the capital investment value (CIV) of the proposal as defined in clause 3 of the Environmental Planning and Assessment Regulation 2000, including details of all components of the CIV; • a close estimate of the jobs that will be created by the development during the construction and operational phases of the development; and • certification that the information provided is accurate at the date of preparation.	There are no construction activities proposed as part of this application a detailed CIV is therefore not necessary. Additional contracted/leased vehicles do not form part of the SWS business and are also not required. The proposal can be accommodated through utilising existing hours of operation as opposed to the need for any additional plant or construction works
• **Strategic and Statutory Context** - including: - detailed justification for the proposal and suitability of the site and proposed transport routes; and - demonstration that the proposal is generally consistent with all relevant planning strategies, environmental planning instruments, development control plans (DCPs), and justification for any inconsistencies.	Comprehensive justifications and suitability of the site are addressed in **Sections 2 and 9**. Traffic related matters included proposed traffic routes have been addressed in **Section 6** and the Traffic Impact Assessment which is included in **Appendix C**. A comprehensive assessment against relevant planning instruments is included in **Section 5**
• **Waste Management** - including: - details of how the material will be collected, managed and disposed of; - details of the quantities and classification of waste to be generated on site; - evidence that the expansion of the existing clinical and medical waste facility fulfils the objectives of the NSW Waste Avoidance and Resource Recovery Strategy 2013-21; and - evidence that NSW Health supports the method of treatment of the clinical waste.	Matters relating to waste have been addressed in **Section 6** of this report As well as in the specialist consultants' reports. The NSW Health approval for the existing facility is also provided in **Appendix J and Appendix R.**
• **Hazards and Risk** - including: - a primary risk screening completed in accordance with the State Environmental Planning Policy No.33 Hazardous and Offensive Development and Applying SEPP 33 (DOP, 2011), with a clear indication of class, quantity and location of all dangerous and hazardous materials associated with the development; and - should the preliminary screening indicate that the project is potentially hazardous, a Preliminary Hazards Analysis (PHA) must be prepared in accordance with the Hazardous Industry Planning Advisory Paper No.6 - Guidelines for Hazards Analysis (COP, 2011) and Multi-Leve/ Risk Assessment (DOP, 2011).	A Preliminary Hazard Analysis accompanies the application addressing issues around risk, and this is provided in **Appendix D**. A summary of the PHA is included in **Section 6**.

Key Issue	Requirement for Consideration
• **Soils and Water** - including: - details of how water will be managed, such as, stormwater and flooding; - details of water requirements including water supply; and - details of leachate collection and management.	The water requirements and disposal methods have been detailed in **Section 6** of this report.
• **Air Quality and Odour** - including: - description of all potential odour sources and predicted odour emissions from the construction and operation of the clinical and quarantine waste facility; - an air quality assessment of all potential air quality and odour impacts from the development, including details of air quality and odour impacts on private properties, in accordance with relevant Environment Protection Authority guidelines; - details of mitigation, management and monitoring measures for preventing and/or minimising both point and fugitive emissions; and - an assessment of the effectiveness of the proposed air quality and odour mitigation measures.	An Air Quality Impact Assessment is addressed in **Section 6** and is also provided in **Appendix B** of this submission.
• **Noise** - including: - a description of all potential noise sources such as construction, operational, on and off-site traffic noise; - a noise impact assessment including a cumulative noise impact assessment in accordance with relevant Environment Protection Authority guidelines; and - details of noise mitigation, management and monitoring measures.	There are no significant noise sources in the current process. No additional noise sources will be introduced as part of this proposal. Detailed consideration of this issue is provided in **Section 6** of this report**.**
• **Traffic and Transport** - including: - details of all traffic and transport demands likely to be generated during construction and operation, including confirmation of whether any additional car parking is required to ensure compliance with the Blacktown Development Control Plan 2006; - an assessment of predicted impacts on road safety and the capacity of the road network to accommodate the project; and - an assessment of likely toxicity levels of loads transported on arterial and local roads to and from the site, and an incident management strategy in the event that an incident occurs during transportation.	Traffic and transport issues have been addressed in **Section 6** and are also provided in **Appendix C** of this submission.
• **Cumulative Impacts** - particularly in relation to air, noise and traffic associated with other nearby industrial or commercial operations.	Cumulative impacts have been considered within **Section 6** of this report.
COUNCIL COMMENTS - ATTACHMENT A	
Planning	
1. The use could be an offensive industry or Offensive Storage Establishment which are both prohibited in the zone. Clear documentary evidence is to be submitted to demonstrate it is not prohibited in the zone.	The characterisation of the proposal has been addressed in the original application to Council that established the land use. This is explained further in this report.

Key Issue	Requirement for Consideration
2. Documentary evidence that the operation of this facility 24 hours a day will not impact on the amenity of the residential area 420m away from the site.	24 hours operations are not proposed. This has been clarified in the various assessments and **Section 4** of the report.
3. Statement of Environmental Effects to include operational details including the proposed uses (if known) hours of operation, staff numbers, delivery times. The types of trucks to be used - the trucks are to ensure they are covered. The SEE shall address the current operations of the site and how the new development will not displace any car parking or impact on the current operations.	Provided within this EIS and the Traffic Impact Assessment provided in **Appendix C** of this submission.
4. The proposal is considered to be Integrated Development as the proposed works are located within 40m of a watercourse.	The subject site is not within 40m of a watercourse and this was confirmed in the original application to Council that established the land use on the site.
5. Statement of Compliance against Blacktown Development Control Plan 2006.	Provided within the EIS.
6. Details of any payable Local Contributions.	Provided within the EIS.
7. Provide details on staging of the development (if proposed).	Provided within the EIS. No staging of the development is proposed simply continuation of existing approved activities
8. Car parking shall comply with the requirements of Blacktown Development Control Plan 2006.	No changes are proposed to the existing approved car parking.
9. Submission of signage including assessment against SEPP 64.	No signage is proposed.
10. Lighting plan for the car park shall be submitted.	No lighting is proposed.
11. Details of any dangerous or hazardous goods, including assessment against SEPP 33 and a Preliminary Hazard Analysis if required.	A Preliminary Hazard Analysis is appended to this report.
12. Details of screening to water tanks (if tanks are proposed).	No new water tanks are proposed. This issue is addressed in the accompanying reports.
13. Details of external finishes and colours including photomontages.	Not applicable. The building is already approved by Blacktown Council as is.
14. Details of any retaining walls including materials of construction.	No construction is proposed.
15. Details of any noise barrier walls on the residential side of the property.	Not applicable since residential properties are too far away and no additional noise sources are proposed.
Engineering and Drainage	
1. The development should be as per "Blacktown City Council, Engineering Guide for Development - 2005" to facilitate the efficient processing of engineering plan submissions, and to ensure that infrastructure associated with the development is designed and constructed to safe, serviceable, economical to maintain and meets community expectations.	No construction is proposed. This Policy is not considered applicable.

Key Issue	Requirement for Consideration
2. Stormwater water quality improvement targets are to be achieved on-site prior to discharge for the new building and any disturbed areas around the new building, accounting for all bypass. The targets are to be assessed using MUSIC and in accordance with all the requirements of Blacktown City Council's Water Sensitive Urban Design. An electronic copy of MUSIC is to be provided to Council for assessment.	No construction is proposed. No changes to the existing hard surfaces are proposed. This requirement is not considered necessary since there are no changes to existing approved water management systems.
3. The development should achieve a minimum of 80% (assessed using MUSIC) of the non-potable water uses on-site for the new building and processes being met using rainwater. Non-potable uses include toilet flushing, any new industrial processes and landscape watering. Allow for toilet reuse of 0.1 KL/day per any new toilet/urinal, ignoring any disabled toilet. For watering landscaped areas (ignoring turf areas) allow 0.4 kL/year/m2 as PET-Rain. For bioretention filter areas only (if used) allow 1 kL/year/m2 as PET-Rain. Allow for a 20% loss in rainwater tank size volume in MUSIC compared to that shown on the design plans to allow for anaerobic zones, mains water top up levels and overflow levels.	No construction is proposed. No changes to the existing hard surfaces are proposed. This requirement is not considered necessary since there are no changes to existing approved water management systems.
Environmental Health	
1. Noise - An acoustic assessment is required due to the nature of the business, and proximity to residential receivers. The assessment should take into consideration the Environment Protection Authority's document NSW Industrial Noise Policy and provide recommendations to mitigate the emission of offensive noise from the proposed development. The report shall be prepared by an appropriately qualified acoustic consultant that is a member of the Association of Australian Acoustic Consultants. The report shall address any required noise attenuation measures to be imposed to ensure noise complies with the NSW Industrial Noise Policy between 10pm and 7am.	The proposal will not result in any unacceptable noise impacts since there will be no additional noise sources. Only noise sources that are already approved by Council will be maintained. No activities will be undertaken between 10pm and 7am. Therefore a Noise Impact Assessment is not warranted or justified. Notwithstanding the above, the issue of noise has been considered in **Section 6** of this report.
2. Odour - An odour assessment is required and must be completed in accordance with the requirements of the Office of Environment and Heritage document Assessment and Management of Odour from Stationary Sources in NSW and Technical Framework November 2006.	The issue of odour has been addressed in **Section 6** as well as in the accompanying Air Quality Impact Assessment, provided in **Appendix B**.
3. Stormwater - Stormwater management plan required to address potential sources of contamination from stormwater runoff.	No construction is proposed as part of this application. Stormwater management is the same previously approved by Council

Key Issue	Requirement for Consideration
4. Wastewater –Trade Waste Agreement is required with Sydney Water Corporation.	A Trade Waste Agreement is already in place between Sydney Water Corporation and SWS.
5. NSW EPA must be consulted regarding licensing requirements, and if the proposed activity would fulfil the objectives of the NSW EPA's NSW Waste Avoidance and Resource Recovery Strategy 2013-21.	An amendment (variation of the existing Environment Protection Licence relevant to the activities) to the current licensing of the facility will be required once approval is obtained. The EPA has been consulted and issues raised by the NSW EPA are addressed
Traffic	
A traffic report should be submitted with the application to address traffic implication of the proposal and an evening I night time (8pm - 7am) route plan to determine the impacts on residential amenity. All travel routes shall limit night time routes between the hours of 8pm and 7am near residential areas.	A Traffic Impact Assessment accompanies the application and is provided in **Appendix C**. No activities will be undertaken between the hours of 8pm and 7am.
RMS COMMENTS	
1. Daily and peak traffic movements likely to be generated by the proposed development including the impact on nearby intersections.	These issues have been addressed in the accompanying Traffic Impact Assessment, provided in **Appendix C**. A summary is also included in **Section 6**
2. Roads and Maritime requires an assessment of the likely toxicity levels of loads transported on arterial and local roads to / from the site and, consequently, the preparation of an incident management strategy for crashes involving such loads, if relevant.	

Based on the responses received from relevant Government Departments, we have listed the details of the signatory as well as the reference details for ease of identification of the relevant documents. **Table 1-3** includes the list.

Table 1-3: SEARs Government Authorities Contact list

AUTHORITY	REFERENCE	DATE	SIGNATURE	CONTACT DETAILS
Department of Planning & Environment	SSD - 6761	1/12/2014	Chris Ritchie	Kelly.mcncol@planning.nsw.gov.au GPO Box 39 Sydney NSW 2001
Blacktown City Council	MC -14-1258	13/11/2014	Judith Portelli	council@blacktown.nsw.gov.au PO Box 63 Blacktown NSW 2148
Environment Protection Authority	EF13/4830 Notice No=1526273	14/11/2014	Greg Thomas	info@environment.nsw.gov.au PO Box A290 Sydney South NSW 1232
Roads & Maritime Services	SYD14/01331	17/11/2014	Angela Malloch	Development.sydney@rms.nsw.gov.au PO Box 973 Parramatta NSW 2150

1.5 PRE-LODGEMENT STAKEHOLDER CONSULTATION

A range of authorities have been consulted with during the preparation of the SEARs, including Blacktown City Council, NSW Environment Protection Authority, NSW Roads and Maritime Services. Matters raised by those authorities have been addressed throughout this report. These authorities were also consulted during the preparation of the EIS. Again no issues of concern were raised.

Consultation has also been undertaken with nearby potentially sensitive residential receivers and surrounding commercial/industrial properties, and this is detailed later in this report.

1.6 SUPPORTING DOCUMENTATION

The proposal is accompanied by the documentation included in **Table 1-4.**

Table 1-4: List of supporting documentation

Documentation	Prepared/issued By
Site Plans and Elevations	Plant Drafting Services
Air Quality Impact Assessment	National Integrated Creative Solutions
Traffic Impact Assessment Transport Incident Management Strategy	Stanbury Traffic Planning
Preliminary Hazard Analysis Report	Benbow Environmental
Secretary's Environmental Assessment Requirements	NSW Department of Planning & Environment
Existing Cleaning Protocol	State Waste Services
Existing Development Consents	Blacktown City Council
Environment Protection Licences	Environment Protection Authority
Independent Audit	Australian Workplace Management
Inspection Reports	State Waste Services and Contractors
Plant Waste Process and Related Documents	State Waste Services
Water Cycle	National Integrated Creative Solutions
Chemicals SDS and Photos	State Waste Services
Treatment Methodology approval – 27/11/2008	NSW Health – Environmental Health Branch
Data Collection Results (11-16 June 2018)	State Waste Services
General Waste Floor Audit (20/06/18-31/08/18)	State Waste Services
Annual Audit – Healthscope Hospitals	State Waste Services
Sanitary Collections – June 2018	State Waste Services
Waste Audit Summary – June, July and August 2018	State Waste Services
Certificate of plant item registration for pressure vessel – CNG 22/02/18	SafeWork NSW
BONDTECH autoclave details manufacturers' specifications, operations, etc..	BONDTECH Corporation
Pressure vessel Certificate/survey report – Pressure vessel (128-U-7919) - 06/03/17	Haines Gas Services Pty Limited
CNG Pressure vessel inspection information – 7.5KL-SU-617	SUPAGAS
Steam boiler – comprehensive service level 5-weekly – 30/05/18	Energy Management Services Pty Ltd
Microbiological Validation of BONDTECH	Eurofins – ams Laboratories Pty Ltd

Sterilisation Unit BTT6X13 – 28/12/17	
Safe to Operate - Inspection of pressure equipment on site at 9 Kenoma Place Arndell Park (Vertical Air Receiver, Horizontal Autoclave, East Coast Vertical Boiler, – 27/04/18 -	Australian Boiler & Pressure Vessel Inspection Services Pty Ltd
SDS for Odour Neutraliser	Vm3 Purefier Pty Ltd
SWS Certification – 22/11/2011	NSW WorkCover Authority
BONDTECH BTT6X13 validation of microbial contamination load by minimum of 4 logs – 13/03/2018	Eurofins – ams Laboratories Pty Ltd
Other related documents	State Waste Services

1.7 EXISTING APPROVALS

The Development Applications listed in **Table 1- 5** have been issued for the site. These are the DAs determined to be relevant to this application.

Table 1-5: List of DA issued for the site

DA No	Date Issued	Details
DA11/1642	23 April 2012	Use of existing premises as a waste management facility for the handling and processing of a maximum of 650 tonnes of clinical waste and quarantine waste per year.
DA12/1124	13 September 2012	Additions and Alterations to Factory/Warehouse containing a medical waste facility. This consent has not been acted on and expires in September 2017.
S9612/1451	2 October 2012	Modification – Alternative treatment process and removal of transportable building.

These approvals are appended to this report (**Appendix G**) and it is expected that the SSD process will require them to be surrendered to Blacktown City Council as a condition of any approval. The Council report to the Joint Regional Planning Panel is also appended for reference (**Appendix G**).

Based on information supplied by the proponent and confirmed with the information obtained from the NSW EPA's public register, we understand that the proponent has two (2) Environment Protection Licences (EPLs) as outlined in **Table 1-6**.

Table 1-6: List of EPLs issued to SWS by the EPA

EPL No	Scheduled Activity	Fee Based Activity	Scale	Authority	Date Issued
12609	Transport of trackable waste	Transport of category 1 trackable waste Transport of category 2 trackable waste	0-All (Vehicles) 0-All (Vehicles)	EPA	27/11/2006
20233	Waste Processing (non-thermal treatment) Waste Storage	Non-thermal treatment of hazardous and other waste Waste storage – hazardous, restricted solid, liquid, clinical and related waste and asbestos waste	>0 T treated >0 T stored	EPA	03/09/2013

As part of the planning process, the Department requires the applicant to submit a draft EIS for "Adequacy Review" to ensure that the key aspects raised in the SEARs are addressed.

2. PROJECT NEED AND ALTERNATIVES

This Section addresses the need for the proposal and it reviews alternatives for the proposal.

2.1 BACKGROUND INFORMATION ON CLINICAL WASTE INDUSTRY

Clinical waste service providers (such as SWS) collect, treat and dispose of a range of clinical wastes produced by the medical service organisations in the health sector. Demand for health services in Australia and in particular NSW has increased steadily over the past ten (10) years.

This can be easily demonstrated by the increase in the number of beds currently provided by the public sector as well as the private sector. Several hospitals within NSW and in particular Sydney Metropolitan Area have been renovated and refurbished with the addition of new wings and many more beds.

Generally speaking, this growth has been due to general growth, continued demand for medical services, and increased hospital and medical funding from the government. The industry expanded over the past ten (10) years to meet higher demand, with steady growth in revenue and enterprise and employment numbers. Based on an official research undertaken by IBISWord in 2017, the medical industry revenue will increase by a 3.4% per year.

In Australia, the total revenue from the medical waste industry was estimated at $463 million with an annual growth of 3.4%. The total number of employees (contractors not included) was 1750 and there were 127 businesses operating in Australia.

Cleanwaway has the lion share of this market across Australia and now in NSW following some acquisitions that occurred in the past 2-3 years.

2.2 NEED FOR THE PROPOSED DEVELOPMENT

As part of addressing the need for the proposed development, there are several factors to be considered. These factors are addressed below.

2.2.1 Factors to be considered

Population

The demographic profile in NSW is changing - the population is growing and ageing, and this is expected to accelerate over the next decade. The increasing larger proportion of older people places increased pressures on the hospitals, residential aged care and community services systems which need to adopt accordingly. Moreover, the growing popularity of a ‘tree’ or ’sea’ change in retirement has created regions of high demand from this demographic.

The ever-increasing use of the NSW health system by the community places comparable demand on the collection and treatment of an increasing amount of clinical waste generated from hundreds of health facilities across the state.

Market Movement

The acquisition of Daniel's Health and Redlam Waste by Tox Free in early 2017 has effectively reduced the competitive field in the Clinical and Related Waste industry to one major and two minor businesses offering these services in NSW.

SWS and SWSTS (Newcastle provider) have a small proportion on the NSW clinical waste market compared to Tox Free commanding 80% of the NSW market.

Health Services in NSW are increasing, and demand is increasing the need for extra capacity clinical services in NSW. This application would result in a sizable alternative offered in a market dominated by the major operator, Tox Free. It will also help to maintain competitive costs to health sector facilities in NSW as well as provide medical waste services to smaller clients in NSW that might suffer financially as a result of limited processing capacity.

Preferred Supplier

SWS has been successful in being appointed as preferred supplier of clinical waste services for Veolia, Suez, JJ Richards, JR Richards, Remondis, Grasshopper, URM, Nationwide Waste, Waste Options and other smaller operators.

2.2.2 Commentary

Without this increase in capacity, SWS will be unable to compete for the growing business volumes anticipated over the next decade and beyond. This could monopolise the dominant provider in this sector as SWS wouldn't have the size, in terms of both financial strength and licensed capacity, to provide an effective competitive alternative.

SWS processing capacity in less than four years of operation has grown dramatically and is under consistent upward pressure. For example, an existing client is building a large new private hospital on the northern beaches and it is anticipated that this hospital alone will generate 150-200 tonne of clinical and related waste a year. This is just one of a number of new hospitals currently under construction. A number of hospitals within New South Wales are proposed to be upgraded. There have also been many new day surgery hospitals and clinics that have opened to take pressure away from the main hospital system. SWS has secured two new day surgery hospitals in the last 12 months and tendered for three others.

SWS has identified a sweet spot in the aged care and residential sector. On behalf of a couple of the major waste companies they service a number of large aged care organisations. It would be a modest estimate to state that approximately 25% of these institutions are undergoing major capital works in order to increase capacity.

We have an increasing and aging population; SWS have large scale infrastructure work in health-related services, and have secured preferred supplier status to a lot of the major waste companies. A reduction in the 'competitive' market in clinical and related waste as result of the recent market acquisitions would be a negative outcome.

SWS estimate that a 3,000 tonne capacity licence would reach capacity in 5 or 6 years based on 30% compound growth of waste volumes.

Granting SWS this uplift in licence capacity would enable a thriving SME that injects millions of dollars into the local economy to continue to prosper and grow. A thriving SWS would help drive competitive pricing and provide a viable alternative to all customers, including those larger organisations such as hospitals but also GPs, Dentists, Vets, Tattooists, Acupuncturists, Cosmetic Surgeons, and so on.

It is well known that the medical/clinical waste sector is unique in its evaluation of market shares since it does not operate on the basis of waste weights but rather on the cost of the services provided. This has always been and will continue to be the manner clinical waste businesses operate. The clinical waste service providers do not provide the services to medical (and other) facilities on the basis of waste collected but rather based mostly on the number of bins collected, the collection frequency and the bins size.

Currently in NSW the annual clinical waste industry's turnover is approximately $50 million with SWS share of $2.7 million based on its current limit of 650 tonnes. This represents a 5.4% of the NSW market. By increasing the processing capacity progressively over the next 5-6 years to 3,000 tonnes and considering the increase in demand for such services of 3.4%, it is estimated that SWS share will not exceed 15% of the NSW market in the next 5-6 years.

This application by SWS to increase its processing capacity is extremely important for SWS and equally important for the Government of NSW since currently there are only 2 other suppliers of such services in NSW and only other supplier of such services in Sydney Metropolitan Area.

The non-approval or even delay of approval of this application will place the NSW Government in a very difficult situation when tendering for such services is due. The current status of the clinical waste industry is near monopoly and this means that the NSW Government will have no other option but to accept the only tenderer irrelevant of the cost of services provided.

This situation has the potential to place the public and possibly the private health sector in jeopardy if the cost of services increases significantly as a result of failure to provide competitive cost by more than one tenderer.

2.3 ANALYSIS OF ALTERNATIVES

The SEARs issued by the Department requires the applicant to provide an outline of the main alternatives considered in preparing the application, and an indication of the reasons for its choice taking into account the main environmental effects.

This section considers the alternatives investigated which include:

- Do-nothing approach.
- Alternatives to utilising the existing premises as the preferred option.

2.4 CONSIDERATION

The proposed development has resulted from the need to provide additional processing capacity at the existing State Waste facility at 9 Kenoma Place, Arndell Park. The starting point for the consideration of alternative options was the brief which is underpinned by a number of guiding principles:

- Develop a site with capacity to service the needs of the region's growing demand for clinical waste processing.
- Access to arterial road network.
- Appropriate existing zoning.
- Ensure that environmental impacts associated with the development are minimised.
- Ensure that appropriate separation existed from residential receptors.
- Ensure that the operational needs of the site can be satisfactorily met minimising conflict with surrounding land uses.
- Where practical, utilise existing site infrastructure.

The design process involved the consideration of site constraints and opportunities as well as key objectives and land use principles for the proposed development.

Do-Nothing Approach

The do-nothing approach was considered not to be a viable option given the level of investment in existing infrastructure on the site. Moreover, given there is capacity in the existing site, it was considered good business sense to maximise existing operations to ensure the ongoing viability of the State Waste Services business.

Alternatives to Kenoma Place as the preferred site

Whilst alternatives were briefly considered, given the nature of the proposed and the capacity within the existing facility, it was considered appropriate to remain at the Kenoma Place site.

The key benefits of the site as the preferred location are:

- Proximity to current and emerging markets.
- Existing zoning and on-site infrastructure.
- Access to arterial road network.
- Low amenity impacts including noise, air quality and visual impacts.
- Less costly and a smaller environmental footprint than relocating to a different site

The proposed development, in terms of location, siting and design is considered to meet the requirements with regard to economic, environmental and social matters.

3. THE SITE AND SURROUNDS

3.1 THE SUBJECT SITE

The land which is the subject of this application is known as being **Lot 14, DP 786328, H/N 9 Kenoma Place, Arndell Park** in the Local Government Area of Blacktown City Council and in the State of New South Wales.

The subject site is located within an existing industrial area at Lot 14, DP 786328, H/N 9 Kenoma Place, Arndell Park. The site is surrounded by other industrial and commercial activities, such as metals sales, motor vehicle repairs, forklift hires & repairs and general storage operations. The subject site is zoned IN1 General Industrial pursuant to Blacktown Local Environmental Plan (BLEP) 2015.

The site has an area of approximately 1,492 m^2, having a road frontage of 25.5m to the cul-de-sac head of Kenoma Place and a depth of 38m. The site enjoys vehicular access to the surrounding well serviced local road network, with access to the regional road network of the Great Western Highway, M4 and M7 via Doonside Road and Eastern Road.

The existing industrial premises have a floor area of approximately 570 m^2 and include 2 offices and a conference room, two small kitchens and staff amenities. In the front building elevation, there are two roller shutter door openings, which will allow for direct loading and unloading access to the internal ground floor area. A site plan and floor layout plan are provided in **Figure 3-9** and **Appendix A**.

3.2 LOCAL CONTEXT

The site is surrounded by the following properties :

- North – Kenoma Place
- South – Lot 222 DP 786329 (23 Lidco Street) and Lot 223 DP 786329 (25 Lidco Street)
- West – SP 85841
- East – Lot 15 DP 786328 (7 Kenoma Place)

The site's driveway starts at street level (Kenoma Place) with an approximate elevation of 53 m. The driveway has a slight incline of about 0.2 m along its entire length until it reaches the front yard of the site where vehicles manoeuver and reverse into the building to load empty bins and unload full bins. This fully concreted area is mostly used for vehicle maneuvering and a car park for employees and visitors. A summary of site details are provided in **Table 3-1**.

Table 3-1: Summary of Site Details

Location	Lot 14, DP 786328, H/N 9 Kenoma Place, Arndell Park
Land Dimensions (Approximate)	Northern Boundary: 25 m Eastern Boundary: 19 m North Eastern Boundary : 31 m Southern Boundary: 44 m Western Boundary: 39 m
Total Area (Approximate)	Approximately 1,492m^2 or 0.1492 Ha
Grid Reference (GDA94 – MGA56)	Middle of Site = Easting: 303933 Northing: 6259038 Elevation: 53 Street Address = Easting: 303933 Northing: 6259062 Elevation: 53
Driveways	Existing Driveway = length: 13 m width: 8 m
Local Government Area	Blacktown City Council
Existing Land Use	The site is surrounded by commercial and industrial activities as permitted within the land use zone
Current Land Zoning	IN1 – General Industrial
Proposed Development	Increase of clinical waste processing from 650 to 3,000 tonnes per year

To give the reader a better understanding of the location of the site, **Figures 3-1, 3-2 and 3-3** show aerials view of the site in the local context including the surrounding activities/developments.

Extract from the land zoning map showing the subject site location is presented in **Figure 3-4**.

Figure 3-1: Aerial View of the Site including Surrounding Areas

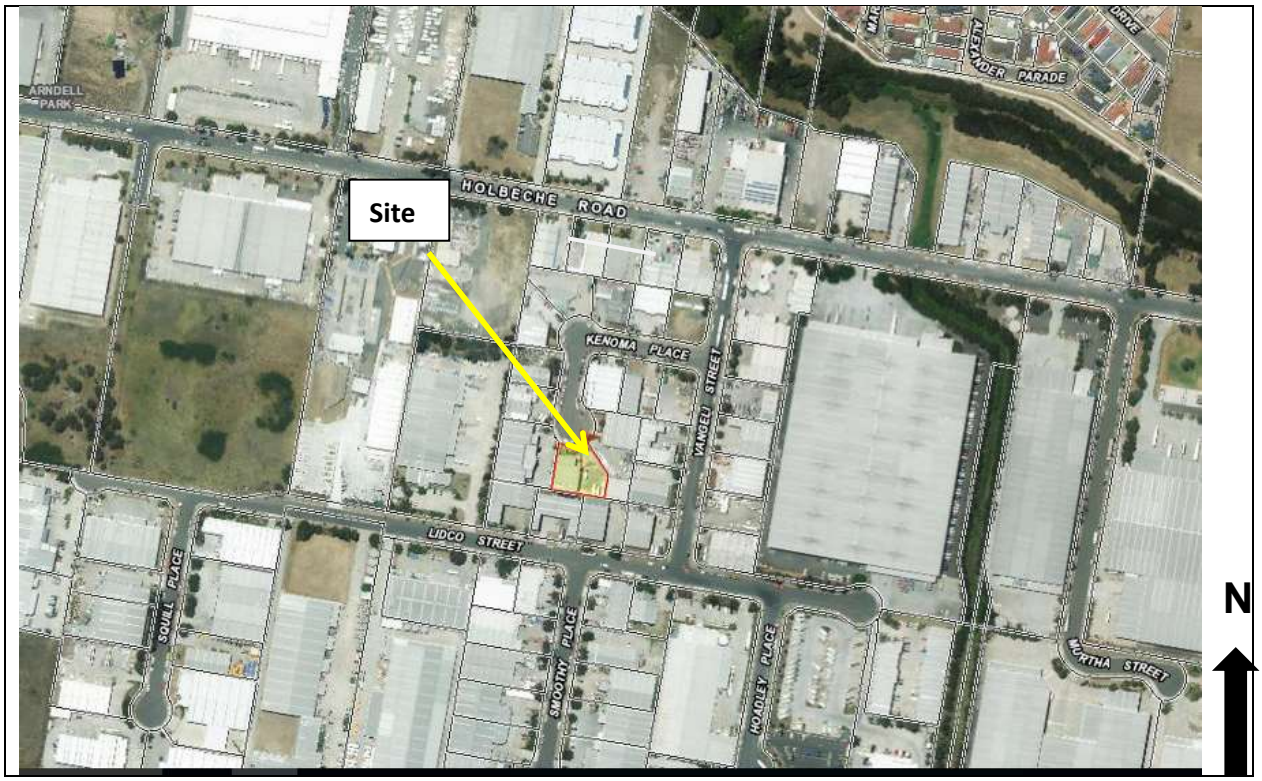


Figure 3-2: Aerial View of the Site including Surrounding Areas – Closer View

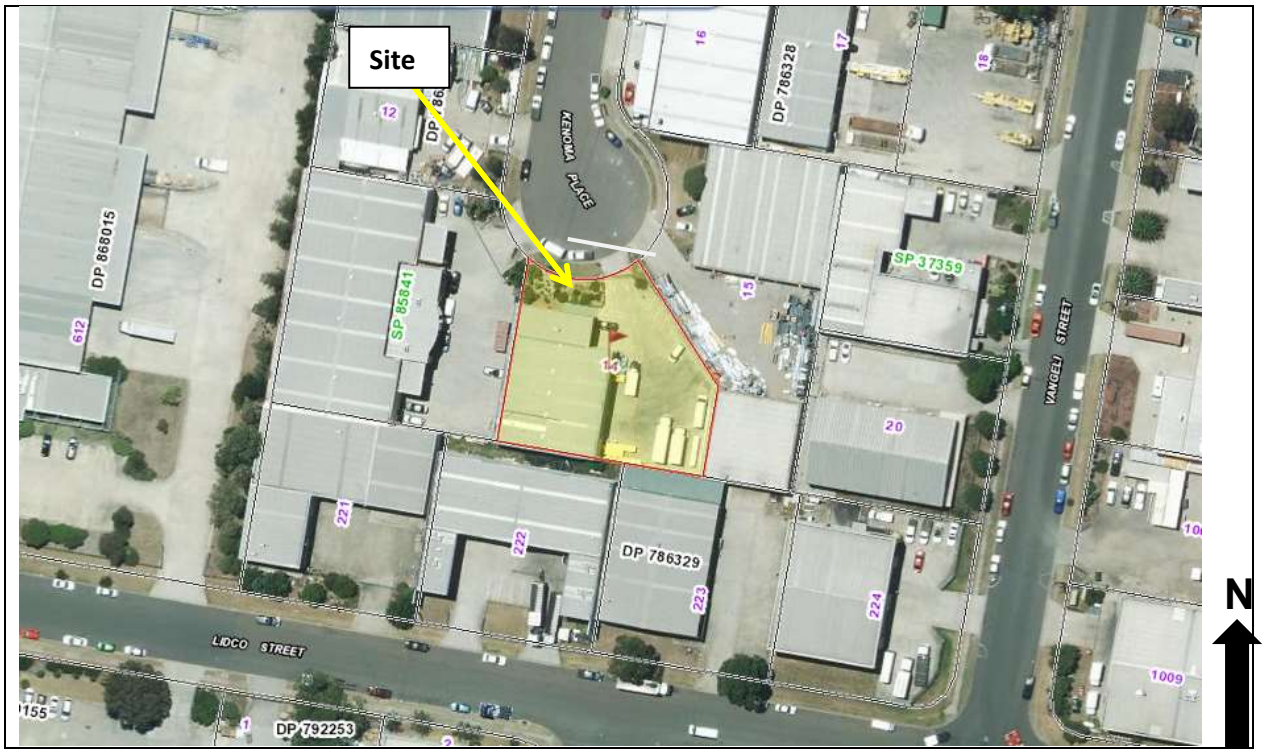


Figure 3-3: Aerial View of the Site – Much Closer View

Figure 3-4: Location of the Site within the Zone IN1 – General Industrial

Closer view of the Site within the land Zone IN1- General Industrial

As previously stated, the site is located within an existing industrial area in Arndell Park. The subject site is zoned IN1- General Industrial pursuant to Blacktown Local Environmental Plan (BLEP) 2015. The proposed development complies with the provisions of Blacktown Development Control Plan (DCP) 2015. The proposal has also been assessed against the objectives and provisions within State Environmental Planning Policy (SEPP) No. 33 – Hazardous and Offensive Development. In this regard the proposal satisfactorily addresses the matters listed under Clause 13 of the SEPP, including compliance with the relevant circulars and guidelines produced by the Department of Planning and Environment, consultation with public authorities, consideration of feasible alternatives and consideration of any likely future surrounding land use. The assessment under SEPP 33 has concluded that the proposal is neither hazardous nor offensive development. The proposed "waste management facility" is therefore a permissible land use under Council's IN1 - General Industrial zoning with development consent.

Despite the fact that there will not be any changes to existing approved water management systems within the site, we confirm that no wastewater or non-clean water will be discharged to any waterway. In any case the closest waterway is called Bungarribee Creek and it is 335 m north east of the site.

3.3 LOCAL TERRAIN

Two three-dimensional views of the site have been provided as **Figure 3-5** and **Figure 3-6**, showing the location of the site. The first figure shows the terrain with the z-axis (i.e. vertical axis) exaggerated by a factor of 10 (i.e. a given distance on the x-axis or y-axis appears ten times as great on the z-axis) in order to provide a clearer description of the topography. The second figure, with all axes equally scaled, shows the terrain as it actually exists when viewed in a conventional three dimensional view. A coloured scale bar shows elevations corresponding to the colours used in the figures. It should be noted that these figures are an approximation of the actual terrain, based on terrain information obtained from satellite imagery.

Figure 3-5: Three-Dimensional View of Terrain of the Region with an Exaggerated Z-Axis (Z-Axis Increased by Factor of 10)

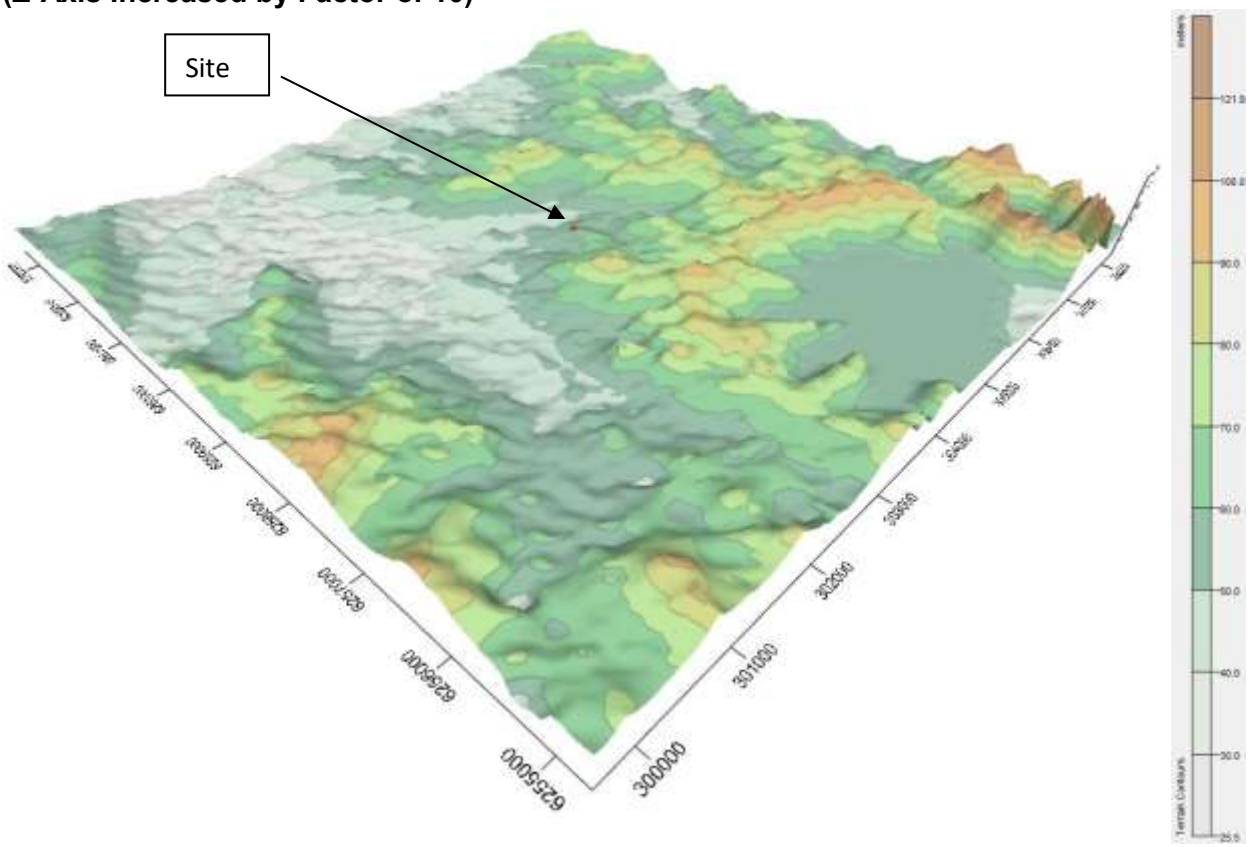
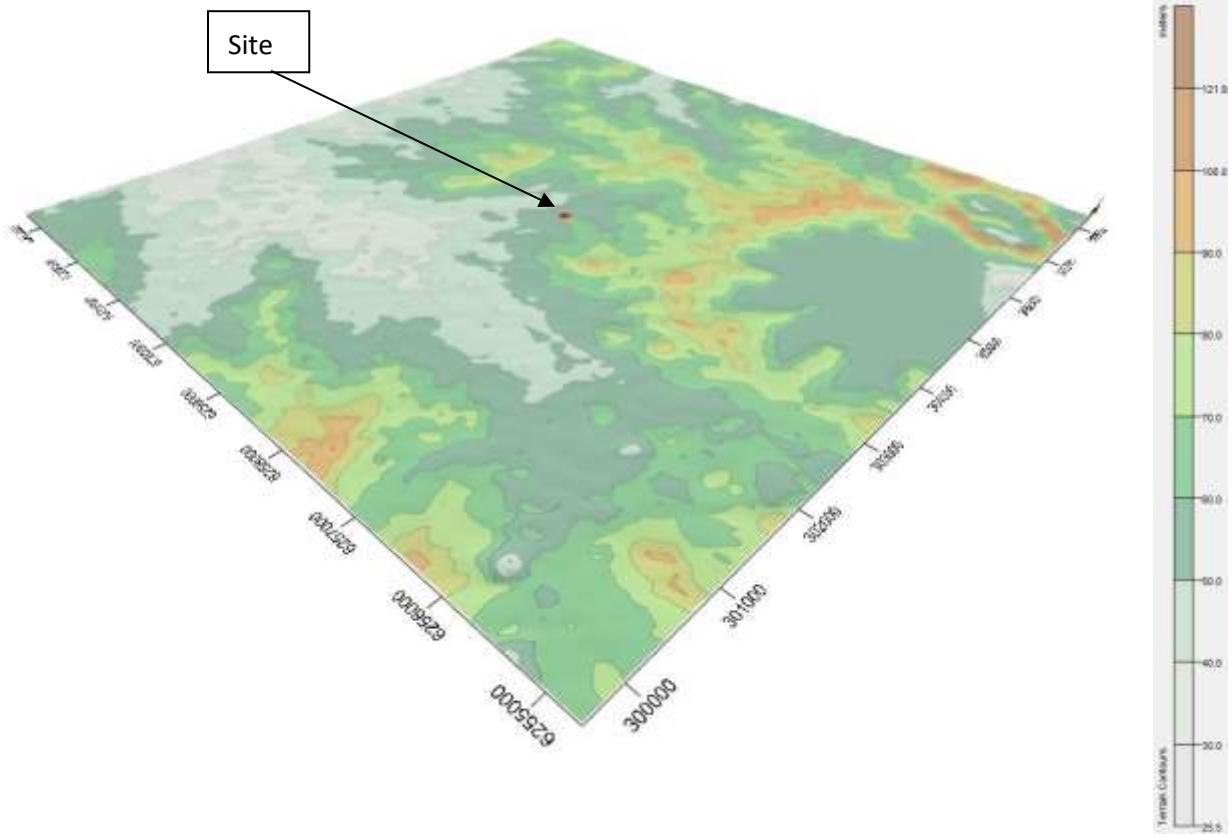


Figure 3-6: Three-Dimensional View of Terrain of the Region with all Axes Equally Scaled



3.4 POTENTIALLY SENSITIVE RESIDENTIAL RECEPTORS

As previously stated, the site is surrounded by commercial/industrial premises and a number of nearby residential dwellings outside the industrial area.

The activities will be well shielded from the surrounding environment by the existing built environment such as the topography of the site, the fact that the activities will be conducted inside a building and the high and large neighbouring commercial and industrial buildings.

Based on the EPA's document "*NSW DEC (EPA) Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales – August 2005*", the following definition of sensitive receptor is provided: "***Sensitive Receptor -*** *A location where people are likely to work or reside; this may include a dwelling, school, hospital, office or public recreational area. ……".* However, as the site is located within a IN1 – General Industrial where a variety of activities are permitted, it was considered appropriate to pay a greater attention to the location of the site relative to the residential zoned areas.

In any case, based on our assessment during our inspections of the site and surrounding environment, the proposed activities are unlikely to have any adverse impact on any sensitive residential receptor under any adverse weather and operating conditions. Similarly, the proposed activities are unlikely to have any impact on the neighbouring commercial/industrial properties provided that the recommended mitigations measures are implemented and maintained at all times.

The closest potentially sensitive residential receptors are shown in an aerial photo which is provided in **Figure 3-7**. The closest residential dwelling is approximately 400m north of the site at the northern side of Bungarribee Creek. However, the closest neighbouring and potentially affected commercial/industrial receptors are shown in an aerial photo which is provided in **Figure3-8**. These facilities surround the site from all directions but north where Kenoma Place is located.

Figure 3-7: Closest Potentially Sensitive Residential Receptors

Figure 3-8: Closest Neighbouring Commercial/Industrial Receptors

Vehicular access is available via the existing driveway and crossover connecting to Kenoma Place.

In summary, the site is located within a highly industrial and commercialised area. It is located at a relatively long distance from any residentially zoned area. It is well shielded in a cul-de-sac street where surrounding buildings provide great shield from visual, noise and air emission perspective. The location of the site in relation to the closest residential dwelling is well shielded as well.

3.5 EXISTING DEVELOPMENT

The subject site currently accommodates an existing industrial building measuring some 505sqm in floor area, and an additional office component measuring some 151sqm, both located within the western portion of the site.

The existing warehouse is serviced by two roller doors within the eastern elevation, which connect to a large hardstand/manoeuvring area. In this area, six (including one disabled) parking spaces are located.

Land to the east, south and west is occupied by similar industrial buildings of various scales and quality to that found on the subject site. Development in the broader area is consistent with the general industrial zoning of the Arndell Park Industrial Estate.

Figure 3-9; View of the site from Kenoma Place

3.6 SITE HISTORY

The subject site has traditionally been used for industrial purposes.

Previous approvals have been issued by Blacktown City Council in relation to the clinical waste processing activities, as well as modifications to the building and these have been detailed earlier in this report and are also appended.

It is submitted that this application will supersede all others with the Department requiring their surrender to Blacktown City Council.

3.7 VEGETATION

The site is fully developed, as is development in the vicinity. There are no examples of any significant vegetation on the site, apart from some formal landscaping within the front setbacks.

4. DEVELOPMENT PROPOSAL

4.1 OVERVIEW

The ever-increasing use of the NSW health system by the community places comparable demands on the collection and treatment of an increasing amount of clinical waste generated from the hundreds of health facilities across the State.

SWS is currently licensed to process 650 tonnes per annum, however this application seeks an increase to 3,000 tonnes per annum. The existing autoclave facility is underutilised and as such, the proposed increase can be accommodated on the site through expanded hours of operation and without any physical works required. No additional autoclave is required to service the proposed capacity.

Autoclaving involves the heating of infectious waste by steam under pressure. The autoclave process destroys microbial fauna and flora through the saturation of heat and moisture that renders the proteins in the microbes non-viable. Autoclaving is considered a more energy efficient and cost effective chemical treatment system, and its operations are preferred over other systems because of the inherent safety of the process.

The supporting documents and assessments included in this EIS demonstrate clearly that the existing plant and equipment are capable in accommodating fully the increase in processing capacity in an effective and efficient manner.

Furthermore, the supporting documents and assessments demonstrate that the existing autoclave provides treatment of clinical waste to a state that is better than required under current NSW Health requirements.

The site is relatively isolated from residential receptors and the potential impacts on those have been considered in the supporting consultant reports.

The main potential impact of the proposal is an increase in traffic movements but this increase will be spread in much longer operating hours. However, this has been considered in detail within the accompanying Traffic Impact Assessment. The surrounding road network has ample capacity within which the relatively minor increase in movements can be accommodated. The required additional vehicles will largely be contract driver vehicles; however the majority of the proposed increase can be accommodated through better vehicle fleet utilisation.

The threshold for clinical waste processing is 1,000 tonnes per annum and so this application triggers the State Significant Development (SSD) provisions of the Act, despite the relatively minor nature of the proposal and the negligible nature of any impacts that may arise.

4.2 EXISTING APPROVED PROCESS

The business already exists on the site, albeit with a lower processing capacity. The normal operations include the receiving of waste materials (medical waste) inside double bagged/lined bins, weighing the bins, emptying the bins into the processing bins which are lined with a special heavy-duty plastic liner to ensure that the materials are fully double-sealed again during the treatment inside the autoclave. All bagged waste materials remain as they are inside the double bags until they are inside the autoclave. None of the waste material is left in the open at any stage of the process. The processing bins are then wheeled into the autoclave which is locked and the treatment process commences. The treatment process takes approximately one hour to complete to ensure compliance with the NSW Department of Health (a copy of NSW Health approval is included in **Appendix J and R** and the NSW Environment Protection Authority's requirements (A copy of relevant Environment Protection Licence is included in **Appendix H**. The temperature in the autoclave will rise to approximately 140 degrees Celsius to ensure that the processed waste materials are subjected to complete destruction of all potentially infectious materials and rendered safe for disposal as General Solid Waste. The processed materials are then placed in the shredder to be shredded and then the shredded materials are placed in the final processed materials bin. This bin is taken on a weekly basis to a lawfully licensed facility which is licensed to accept this type of waste (General Solid Waste). The existing approved as well proposed Waste Treatment Process is presented in **Figures 4-1 and 4-2.**

Figure 4-1: Approved and Proposed Waste Treatment Process

Figure 4-2: Approved and Proposed Waste Treatment Process presented with Photos

Process Stage	Representative Photos
Bins are collected from medical premises. Clinical waste is double bagged in State Waste Services bins. Bags are sealed on collection and loaded onto truck for delivery to Arndell Park. Estimated time for this part of the process: 15 mins	
Bins are weighed on arrival. Estimated time for this part of the process: 15 mins	
Bins emptied into the processing bin (contains a heavy liner) for preparation to enter the autoclave. Waste remains double bagged. Estimated time for this part of the process: 15 mins	


RESTRICT
AREA

The processing bin is then rolled into the autoclave which is sealed. The sterilisation process takes 1 hour, after which time the processing bin is removed from the autoclave. The temperature in the autoclave rises to 140 degrees as required by NSW Health guidelines.
Estimated time for this part of the process: 1 hour

The processing bins are left to cool and are then emptied into a shredder where the entire load is shredded into small fragments. Estimated time for this part of the process: 1 hour	 

The resultant inert fragments are then loaded into a larger bin where it awaits collection to be transferred to landfill. This bin is collected on a weekly basis or more often, if required. **Estimated time for this part of the process: 30 mins**	

In summary, the process transforms medical waste into general solid waste without incineration. The process essentially consolidates the waste in volume, and treats it to an inert state which is classified as General Solid Waste (Non-Putrescible).

It is noted that the volume of clinical wastes is reduced in size as a result of the treatment process. However, the weight of the clinical wastes is increased due to the increase in moisture content from the steam until it is fully dried up.

All waste materials are processed on the same day to ensure any potential impacts are prevented as a result of overnight storage.

Refer to the list of supporting documents included in Table 1-4 on pages 35 and 36 of this EIS. These supporting documents demonstrate that the method of treating waste in the autoclave has been approved by the NSW Department of Health.

We have also included the results of the most recent tests demonstrating that the autoclaving treatment method achieves better than the NSW Health's treatment requirements. Refer to Appendix R for copies of relevant test results which demonstrate clearly that the autoclave and waste processing meet the NSW Health's Approved Methods to Treat Clinical Wastes.

A recent inspection (11/12/18) by senior officers of Health NSW confirmed that SWS facility complies fully with the above guidelines and the approval will be renewed shortly for 5 more years.

The facility is approved to operate 7am – 7pm Monday to Saturday, however the restriction on processing capacity generally limits operations to between 7.30am – 3.00pm Monday to Friday.

This application, if approved, would utilise those existing approved hours of operation..

4.3 PROPOSED ACTIVITIES

The proposed activities are exactly the same as the previously approved activities with only a change of required hours to complete the treatment of additional waste received by the facility on daily basis.

All SRVs and MRVs used for the transport of clinical wastes are equipped with a pneumatic lift which is used to load the bins at the collection points (source). The vans are used for smaller bins and they are collected by the operator who will place them inside the vehicle in a safe manner to ensure that they remain as they are during transport. In most cases and due to the fact that the bins are relatively light, these are wheeled in by using specially designed ramps.

On arrival to the SWS facility all vehicles reverse into the building to ensure that all bins are removed from the vehicles in a safe manner and inside the building. For the SRVs and MRVs, the bins are placed on the lift which is lowered to the ground. Similarly to the bins loading process, the unloading process is completed by the use of specially designed ramps which are used to wheel out the bins inside the building.

In summary, the normal operations include the receiving of waste materials (medical waste) inside the double bagged/lined bins, weighing the bins, emptying the bins into the processing bins which are lined with a special heavy duty plastic liner to ensure that the materials are fully sealed again during the treatment inside the autoclave. All bagged waste materials remain as they are inside the double bags until they are inside the autoclave. None of the waste materials are left in the open at any stage of the process. The processing bins are then wheeled into the autoclave which is locked and the treatment process commences. The treatment process takes approximately 1 hour to complete to ensure compliance with the NSW Department of Health and the NSW Environment Protection Authority's requirements. The temperature in the autoclave will rise to approximately 140^{o}C to ensure that the processed waste materials are subjected to complete destruction of all potentially infectious materials and rendered safe for disposal as General Solid Waste. The processed materials are then placed in the shredder to be shredded and then the shredded materials are placed in the final processed materials bin.

This bin is transported on a weekly basis to a lawfully licensed facility which is licensed to accept this type of waste (General Solid Waste).

In summary, the process transforms medical waste into general solid waste (non-putrescible) without any incineration. For this type of waste, this process is the most environmentally friendly and safest process currently exists not only in Australia but all across the world. It has been approved by the most relevant organisations worldwide.

All waste materials are processed on the same day to ensure that any potential health and/or environmental implications are prevented as a result of the storage of the waste materials overnight.

It should be noted that despite the fact that the waste materials are mostly dry solid materials, the whole building is fully bunded to prevent any potentially spilled materials from leaving the building under severe adverse weather conditions.

The collected waste materials are classified by the EPA as being clinical and related waste and the waste code is R100.

4.3.1 List Infrastructures, Plant, Equipment and Machinery

The list of machinery that is required to be used for the processing of waste materials is presented below.

The site layout is shown in **Figure 4-1** and **Appendix A**. The site layout includes all components associated with the proposed activities as outlined below. The main role of each component is also included.

- Autoclave – waste treatment
- Storage areas & Racking – storage of clean & lined bins, plastic bags, heavy duty liners and other spare parts
- Bin Tipper/scale – unloading of waste collection bins and weighing them
- Boiler – generation of steam for sterilisation
- Compactor (processed waste skip bin) – storage of processed waste
- Shredder – shredding of treated/processed waste
- Wash bay – washing of used bins
- Condenser – conversion of steam to water
- Boiler water tank – storage of water supply for the boiler
- Compressor receiver – provides pressurised water to the wash bay
- Pumps – Pumping water between different equipment
- Water storage tank – storage of water for treatment as part of the closed loop water cycle

Machinery list for processing of waste materials

- Vans,
- Trucks,
- Waste collection bins,
- Scale,
- Waste processing bins,
- Processed waste bin,
- Autoclave,
- Small boiler,
- Pipes,
- High pressurised water cleaner.

4.3.2 Autoclaving Process

Autoclaving sterilises by subjecting infectious waste to high temperature and pressurised steam conditions. The principal of the autoclave process is to denature proteins through saturation of heat and moisture. This process destroys microbial flora and fauna existing in the clinical waste.

The clinical and related waste is delivered in reusable double lined yellow clinical waste bins by fixed bed trucks approved by the NSW EPA for collection/transport of these categories of waste. The scope of the collected waste would be limited to sharps, dressing and disposable linen, microbiological and pathological waste, human and animal tissue and body fluids.

The autoclave process involves the following steps based on information supplied:

- The clinical and related waste is weighed and emptied into the autoclave drawer prior to loading the drawer into the autoclave; The yellow bins are segregated, hand cleaned using hospital grade disinfectant, de-odourised and then transferred to the warehouse bin storage area ready for re-use;

- A thermocouple is placed into the autoclave drawer before the drawer enters the autoclave, to measure the temperature of the waste at the core. Another thermocouple measures the ambient temperature within the autoclave during the sterilisation cycle time; temperatures are recorded;

- The autoclave is closed and sealed, a vacuum is applied in the autoclave chamber;

- Steam is applied to the chamber, with a typical working pressure of 310 kPa and maintained to a temperature of approximately 134°–140°C for a period of 30 minutes. Steam condensate will drain to the site water tank and subsequently the closed loop water management system;

- At completion of the steam sterilisation process, a vacuum is again applied evacuating the steam and residual condensate. The evacuated contents are then pumped to the site's water tank. This system will prevent odours from being directly released into the atmosphere;

- The drawer is removed from the autoclave before mechanically transferring the treated waste to a conveyor system;

- Waste is then fed to a shredder via the conveyor to render the waste unrecognisable and then drops into a waste compactor in preparation for landfill disposal;

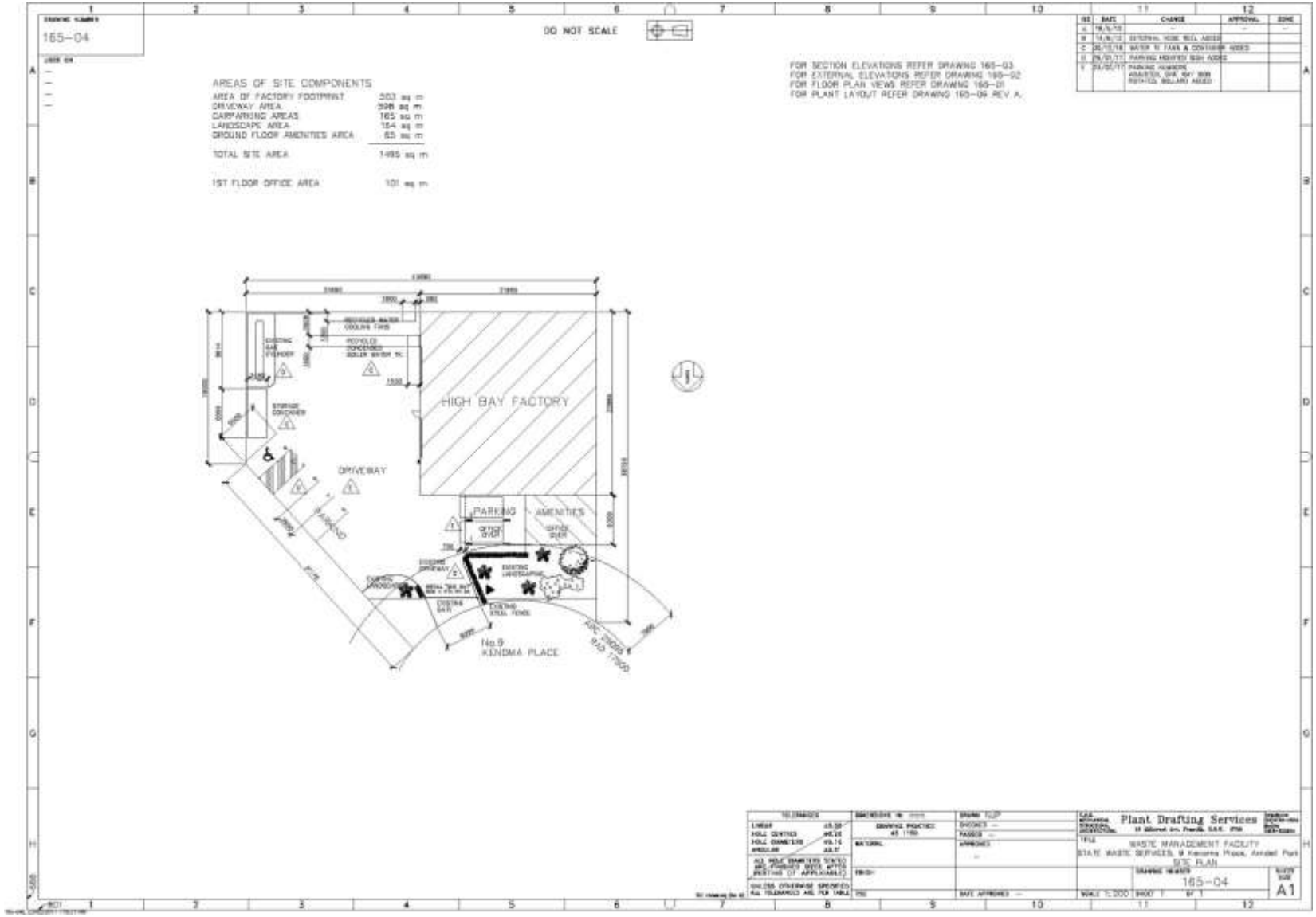
- The treated waste is compacted and transported by truck to landfill.

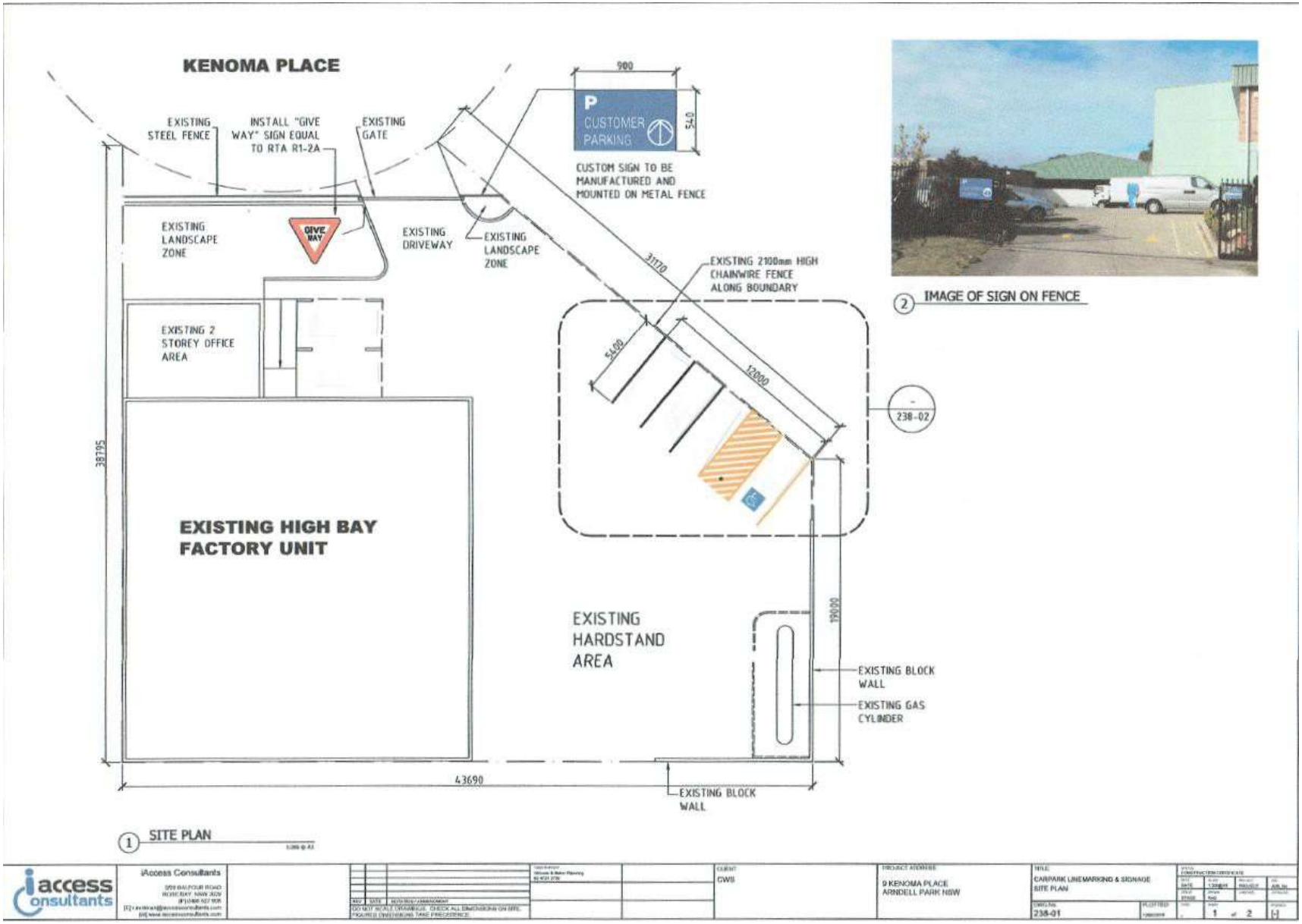
The waste after autoclaving is sterilised and rendered harmless, the volume of waste from the process is reduced in volume by 40-60% at transport stage. Based on the regular testing of the autoclave efficiency, it is clearly evident that it complies with the NSW Health Department's

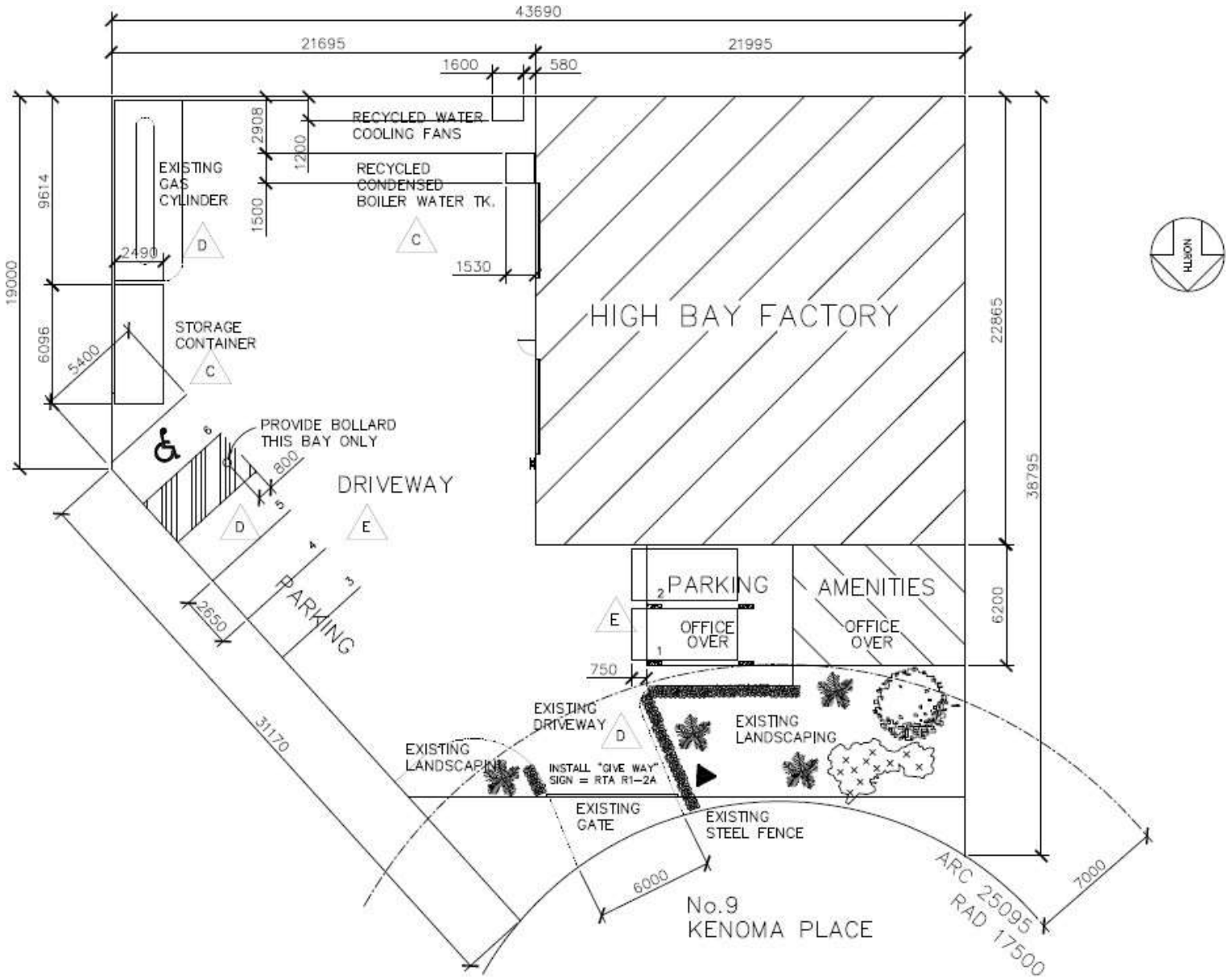
requirement and has been demonstrated that it exceeds these requirements. Relevant supporting documents are included in **Appendices P and R.**

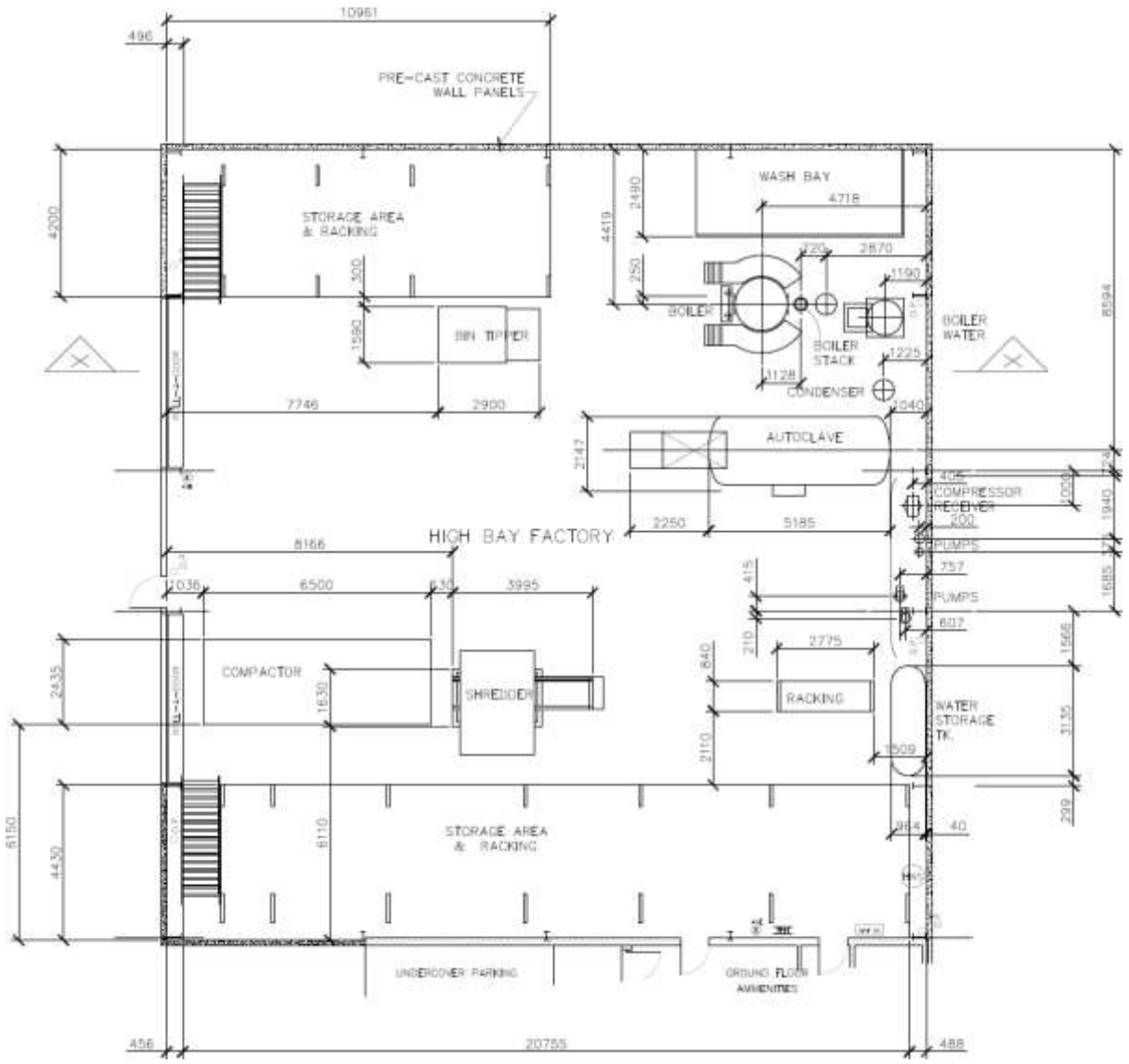
During regular service and maintenance of equipment, machinery and the like, as required by the manufacturers and Government Organisations, it is preferable that some bins are temporarily stored outside to provide a safer working environment for the contractors. This also occurs during general cleaning up of the building to ensure the highest standard of clean environment is provided to all operators within the building. In any case, the storage of bins in that specific outside area was included in the initial development application and was approved as storage area. The manoeuvring of vehicles will not be impacted upon by the storage of these bins in that specific area.

Figure 4-3: Site Layout




KENOMA PLACE
EXISTING STEEL FENCE
INSTALL "GIVE WAY" SIGN EQUAL TO RTA R1-2A
EXISTING GATE
900
P
CUSTOMER PARKING
540
CUSTOM SIGN TO BE MANUFACTURED AND MOUNTED ON METAL FENCE
EXISTING LANDSCAPE ZONE
GIVE WAY
EXISTING DRIVEWAY
EXISTING LANDSCAPE ZONE
31170
EXISTING 2100mm HIGH CHAINWIRE FENCE ALONG BOUNDARY
EXISTING 2 STOREY OFFICE AREA
5400
12000
238-02
38795
EXISTING HIGH BAY FACTORY UNIT
EXISTING HARDSTAND AREA
19000
EXISTING BLOCK WALL
EXISTING GAS CYLINDER
43690
EXISTING BLOCK WALL
1 SITE PLAN
2 IMAGE OF SIGN ON FENCE
iaccess consultants
iAccess Consultants
CLIENT
GWS
9 KENOMA PLACE
ARNDELL PARK NSW
CARPARK LINEMARKING & SIGNAGE
SITE PLAN
238-01


43690
21695
21995
1600
580
RECYCLED WATER COOLING FANS
2908
1200
RECYCLED CONDENSED BOILER WATER TK.
1500
1530
EXISTING GAS CYLINDER
2490
9614
19000
6096
5400
STORAGE CONTAINER
HIGH BAY FACTORY
22865
38795
NORTH
PROVIDE BOLLARD THIS BAY ONLY
800
DRIVEWAY
PARKING
2650
31170
PARKING
AMENITIES
OFFICE OVER
OFFICE OVER
6200
750
EXISTING DRIVEWAY
EXISTING LANDSCAPING
EXISTING LANDSCAPING
INSTALL "GIVE WAY" SIGN = RTA R1-2A
EXISTING GATE
EXISTING STEEL FENCE
6000
No.9
KENOMA PLACE
ARC 25095
RAD 17500
7000


10961
496
PRE-CAST CONCRETE WALL PANELS
STORAGE AREA & RACKING
4200
300
1590
BIN TIPPER
7746
2900
WASH BAY
4719
2490
4419
250
720
2870
1190
BOILER
BOILER STACK
1225
1128
CONDENSER
1040
BOILER WATER
8594
AUTOCLAVE
2147
406
COMPRESSOR
RECEIVER
200
PUMPS
757
PUMPS
607
1940
1685
1666
3135
209
2250
5185
HIGH BAY FACTORY
8166
1038
6500
630
3995
415
210
2775
840
RACKING
2110
WATER STORAGE TK.
1509
COMPACTOR
SHREDDER
2435
1630
6150
4430
6110
STORAGE AREA & RACKING
864
40
UNDERCOVER PARKING
GROUND FLOOR AMENITIES
456
20755
488

4.4 HOURS OF OPERATION

Under normal circumstances, the hours of operation would depend on demand. At this stage we understand that most clinical waste received on site is processed between the hours of 7.30 am and 3.00 pm Monday to Friday only. However, Blacktown City Council has already approved the following hours of operation:

- **Monday to Saturday 7:00am - 7.00pm**

Therefore the proposed hours of operation are: **Monday to Saturday 7:00am - 7.00pm** which are the same with those already approved.

It is proposed that these hours could be reviewed in 12-18 months after normal operation with the new processing capacity commences, to ensure that the market demand does not cause additional constraints on the employees and the company.

If considered necessary, these hours could be extended to seven days per week to provide the company with flexibility just in case there were any breakdowns in any plant or equipment to ensure that the materials are processed promptly as soon as the repairs are completed. There are also many other reasons why flexibility is extremely important in this business including the fact that in some cases, collection of such materials from emergency wards could be required on Sundays.

4.5 PHOTOGRAPHIC SECTION

It was considered appropriate to include photos of several structures and equipment used in the SWS facility as well as other aspects associated with the facility to give the reader a better understanding of the facility. **Figure 4-4** includes some additional photos taken during site inspections..

Figure 4-4: Site Photos

4.6 DETAILS OF THE PROPOSAL

4.6.1 Built form

No construction is proposed as part of this application. No additional plant is required to accommodate the increase in processing capacity.

4.6.2 Vehicular elements

Vehicle Fleet

A fleet of EPA licensed, fixed bed waste collection vehicles, averaging 18 truck movements daily within the Sydney Metropolitan Area is currently available for use.

Delivery vehicles would have a maximum capacity to carry waste materials as specified below:

- Van 300 kg
- SRV 2,000 kg
- MRV 12,000 kg

(SRV: small rigid vehicle; MRV: medium rigid vehicle.)

Details on the traffic operations are provided below. However, the traffic operations are addressed in great details in the Traffic Impact Assessment included in **Appendix C**.

Proposed Operations

- Approved hours of operation are 7am–7pm Monday to Saturday.
- Current on-site staff totals 6 employees are to be retained as existing.
- 2 additional contract drivers are to be added to the existing 6 drivers operating the following vehicles:
  - 9 (2 additional) vans;
  - 1 SRVs; and
  - 2 MRVs.
- These contract vehicles travel to and from the site between 7 am and 5pm.
- The on-site waste treatment is to continue to occur as existing.
- The bulk collection bin is to be transported to and from the site as existing however the bin loading/unloading activity is typically to occur in the late afternoon (between 4pm–7pm) to ensure it occurs following the unloading and treatment of waste earlier in the day.
- The increased site operation will necessitate bulk collection bin loading/loading activity to occur once per day rather than five (5) times per fortnight.
- Deliveries to the site will not be impacted by the increased site operation.

All vehicles will continue to be stored off site overnight and when not operated.

Bulk Waste Bin (Processed Waste Skip Bin)

The increased site operation will necessitate the bulk waste bin being removed for landfill once per day rather than the current frequency being every 3-4 days.

Car parking

No changes to the existing approved parking are required. The accompanying Traffic Impact Assessment supports the subject site in the present configuration to accommodate the proposed amendment.

4.6.3 Operational elements

Processing Capacity

This application seeks approval for the processing of 3,000 tonnes per year of clinical/medical waste.

Storage of Waste Material

There is no overnight storage of any clinical and related waste material on site. Waste material received at the site will be treated immediately after arrival each day. Only processed and

treated materials are stored on site. These materials are classified as General Solid Waste (non-Putrescible) in accordance with current NSW environmental legislation.

Employee Numbers and Visitors

The expanded operations will not require an increase of on-site staff. At any one time, this is to be retained at 6 staff. Two additional contract drivers will be required. However, a third driver could be contracted if considered necessary.

Wastewater

There are two sources of wastewater – from the washing of the bins, and steam used in the autoclave.

The existing procedure for the cleaning of bins is appended to this report. This sterilised water is discharged to Sydney Water in accordance with existing Trade Waste Agreement. Regular testing at the point of discharge has previously occurred. Results of sample testing are included in **Appendix K.**

Regarding the steam used in the autoclave, SWS had a NATA accredited laboratory undertook testing of this water at the commencement of its operations initially on a monthly basis, then 3 monthly and finally 6 monthly before Sydney Water Corporation were satisfied SWS did not need to do any more tests.

The specific tests included the following analytes:

- Biochemical Oxygen Demand
- Suspended Solids
- Total Grease
- Barium
- Iron
- Total Phosphorus
- Zinc

The results of all sampling analysis were consistently negligible.

Furthermore, the autoclave discharges in a closed loop operation. There is a 20,000Ltr tank that takes the discharged heated water from the autoclave. This water is then pumped through a cooling fan and filtering process to be re-used on the next cycle of the autoclave. This water is not discharged to sewer and if required can be pumped out and disposed of separate to release to sewer. There is also no discharge of autoclave steam to the environment. The steam is piped and directed into a 5,000ltr tank of cool water. This process works very effectively to trap the steam and any obnoxious odours that may be contained in the steam if they were ever generated. Again, this water can be disposed of separately to the sewer, if required. However, this water is recycled through the closed loop water recycling system. This water is treated regularly by professional contractors as shown in the inspection reports included in the various

Appendices. In addition, a copy of the Materials data sheet for the odour neutralising agent is included in **Appendices L and R**.

The Trade Waste Agreement with Sydney Water Corporation (SWC) permits the discharge of up to 329 KL/day of wastewater.

Currently, the average quantity of wastewater being discharged to sewer is approximately 270 KL/year

Due to the closed loop wastewater recycling system, the quantity of wastewater to be discharged to sewer is unlikely to exceed the approved amount. However, if this is likely to occur, an increase in the approved volume limit will be requested from SWC. Existing plumbing system is more than capable to handle this relatively small quantity of wastewater.

However, SWS is considering other options for this source of water to reduce the use of potable water. This option would include recycling the water several times before it is saturated with potential odorous steam condensate. So the water would be replaced less frequently to preserve valuable potable water for other more important uses. Another benefit of this option is to reduce the load on Sydney Water sewer.

Electricity

The site is currently serviced by appropriate electricity connections. These will be able to accommodate the proposed processing increase.

Gas

The site accommodates an existing gas tank which will have ample capacity to accommodate the proposed increase in waste processing.

Water Supply

Water is already drawn from the Sydney Water Corporation’s supply and will continue to be.

Stormwater Drainage

No physical works form part of this application and so the existing stormwater arrangements will be maintained. None of the activities would drain to stormwater since there is no stormwater connected to the building flooring.

Despite our formal and informal applications to Blacktown Council to obtain all documents, approvals, consents, plans, etc... associated with the site, no drawings or plans associated with the stormwater arrangements on the outside concreted area were found. Notwithstanding the above, since there are no changes to this catchment there should not be any changes required for the manner rainwater is draining by gravity to Council’s stormwater.

Signage

No signage forms part of this application.

External lighting

No additional exterior lighting is proposed as part of this application.

Proposed Road System

Traffic routes will focus solely on the major roads. No heavy vehicles would operate. The major roads which will be used as the delivery vehicle route for travelling to and from the site are listed below:

- M4, M7, M2 and M5 Motorways,
- Great Western Highway;
- Doonside Road, Walters Road or Reservoir Road, into
- Holbeche Road, into
- Vangeli Street, and then into
- Kenoma Place.

Waste Management

There will be no additional office based waste generated from the site because of this application. Office based waste will continue to be collected under existing arrangements.

Waste management is addressed in great details in Section 6.

Contamination

The site is not considered to be a high risk of being contaminated. No works are proposed as part of this application and so no further consideration of contamination is considered necessary.

Landscaping

No construction is proposed on the site as part of this proposal. Existing landscaping on the site is therefore not proposed to change.

4.7 DETAILS OF EXISTING AND PROPOSED DAILY PROCESS

The process outlined below is undertaken on a daily basis by all employees and contract drivers.

1. The employee/contractor drives his private car to the works depot or gets a lift to the works deport where all SWS vehicles are parked overnight,

2. The employee/contractor inspects the SWS vehicle to ensure that it has all required empty bins for his specific run on that day,
3. The employee/contractor undertakes a general inspection of all other aspects in accordance with current best industry practice,
4. The employee/contractor proceeds to his destinations in accordance with his daily schedule,
5. On arrival, the employee/contractor parks safely the vehicle and proceeds cautiously on foot to the location of the first bin carrying with him a replacement bin,
6. The employee/contractor removes the existing bin and place a freshly cleaned, sterilised and lined bin in its place,
7. The employees/contractor proceeds to the parked vehicle, places the used bin and removes another clean bin,
8. The employee/contractor proceeds to the location of the next bin following the same procedure,
9. This procedure is followed until all used bins are replaced with clean bins,
10. Depending of the specific daily planner for this specific vehicle, the employee will drive back to the SWS waste treatment facility at 9 Kenoma Place, Arndell Park,
11. The employee/contractor reverses its vehicle into the enclosed, concreted, sealed and fully bunded building,
12. Every bin is lowered separately to the ground inside the building,
13. Each bin is wheeled onto the scale to obtain gross weight of which the well-known weight of the specific bin is deducted from the gross weight to obtain the net weight of the clinical waste in each individual bin,
14. Relevant records are kept on a computer to ensure that all data collected can be interrogated at any time, in addition to the fact that SWS provides a waste report to the EPA on a monthly basis and has been doing so for the last 5 years. This monthly report provides all necessary data to the EPA in line with current statutory requirements associated with the management of waste in all waste facilities operating within NSW.

    As previously stated, the autoclave is capable of processing approximately 1 tonne per 1 hour cycle. This means that for the currently approved 12 hours per day Monday to Saturday, it can process at least 11 tonnes per day.

    Currently, an average of 2.5 tonnes per day of clinical waste is received and processed on site.

    All clinical wastes currently received on site are processed on the same day with many hours to spare. This practice will continue to ensure that all clinical waste received is processed on the same day. No untreated waste will be stored on site overnight.

    If for any reason, sufficient waste materials received for that day, no more collections will be undertaken on that day but rather, they will be collected the next day.

    As previously advised, all clinical wastes are emptied immediately after being received into the fully lined steel drawers/bins ready to be treated in the autoclave.

As soon as the previous treatment cycle is completed, the fully lined steel drawers/bins containing the treated wastes are wheeled off the autoclave and pushed towards the shredder,

Meanwhile, the newly filled fully lined steel drawers/bins containing the untreated wastes are wheeled into the autoclave to start the next treatment cycle. This process continues until all wastes received on that day are treated, shredded and placed in the General Solid Waste Bin.

5. PLANNING AND LEGISLATIVE FRAMEWORK

5.1 INTRODUCTION

The following section provides the planning and legislative framework for the proposed waste management facility. The purpose of this section is to outline the approval process and identify the applicable planning controls and legislative requirements that relate to the proposed development. This section identifies the planning framework under which approval for the proposed development would be obtained, specifically under Clause 4 of the EP&A Regulation.

5.2 FEDERAL LEGISLATION

The following section provides an overview of relevance of certain pieces of federal legislation with regards to the proposed operations.

5.2.1 Environment and Biodiversity Conservation Act 1999

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) requires the approval of the Commonwealth Minister for Environment Protection, Heritage and the Arts for actions that may have a significant impact on matters of National Environmental Significance (NES). Approval from the Commonwealth Minister is in addition to any approvals under NSW legislation.

The EPBC Act also provides for the identification, conservation and protection of places of national heritage significance and provides for the management of Commonwealth heritage places and establishes the Australian Heritage Council.

The EPBC Act lists seven matters of NES which must be addressed when assessing the impacts of a proposal. A search of the EPBC protected Matters database has been undertaken in respect of the proposal. A summary of how the proposal may impact on the matters of NES is provided below.

Matter of NES	Comments
World Heritage Properties	There are no world heritage properties within or in the vicinity of the proposed development, or that would potentially be affected by the proposed development.
National Heritage Properties	There are no wetlands located near the subject site.
Wetlands of International Importance	The site is located to the north of existing wetlands but is not considered to negatively impact on migratory bird species since it is within well-established industrial area.
Commonwealth Listed Threatened Species and Communities	The proposed development is not expected to impact upon any known threatened species.

Matter of NES	Comments
Commonwealth Listed Migratory Species	The proposal is not expected to have an impact on any listed migratory species.
Nuclear Action	The proposed development would not involve nuclear action as defined under EPBC Act 1999.
Commonwealth Marine Areas	There are no Commonwealth marine areas proximate to the proposed development, or that would potentially be affected by the proposed development.
Commonwealth Land	The subject site is not Commonwealth Land, nor would Commonwealth land likely be affected by the proposed development.

Given that the proposed development would not have any impact on matters of NES or on Commonwealth Land, the requirements of the EPBC Act are not triggered and approval from the Commonwealth Minister for Environment Protection, Heritage and the Arts is not required.

5.3 STATE LEGISLATION

5.3.1 Planning

The *Environmental Planning and Assessment Act 1979* and the *Environmental Planning and Assessment Regulation 2000* provide the framework for environmental planning in NSW. The Act and the Regulation include Provisions to ensure that proposals, which have the potential to impact on the environment, are subject to detailed assessment.

5.3.2 Environmental Planning and Assessment Act 1979

As part of this application, it is considered appropriate to include some information about the most relevant planning legislation including the *Environmental Planning and Assessment Act 1979* (EP&A Act).

General

The main objects of the EP&A Act are included in Clause 5 of the EP&A Act and are outlined below.

The objects of this Act are:

(a) to encourage:

(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,

(ii) the promotion and co-ordination of the orderly and economic use and development of land,

(iii) the protection, provision and co-ordination of communication and utility services,

(iv) the provision of land for public purposes,
(v) the provision and co-ordination of community services and facilities, and
(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and
(vii) ecologically sustainable development, and
(viii) the provision and maintenance of affordable housing, and

(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and
(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.

It is clear that the activities proposed to be conducted on the premises are consistent with the objects of the EP&A Act.

5.3.3 Designated Development

The proposed development constitutes designated development as it is captured by Clauses 32(1)(b)(i) and, partly, 32(1)(d) under Schedule 3, Part 1 of the *Environmental Planning and Assessment Regulation 2000,* reported below.

32 Waste management facilities or works
(1) Waste management facilities or works that store, treat, purify or dispose of waste or sort, process, recycle, recover, use or reuse material from waste and:

(a) that dispose (by landfilling, incinerating, storing, placing or other means) of solid or liquid waste:

(i) that includes any substance classified in the Australian Dangerous Goods Code or medical, cytotoxic or quarantine waste, or
(ii) that comprises more than 100,000 tonnes of "clean fill" (such as soil, sand, gravel, bricks or other excavated or hard material) in a manner that, in the opinion of the consent authority, is likely to cause significant impacts on drainage or flooding,
or
(iii) that comprises more than 1,000 tonnes per year of sludge or effluent, or (iv) that comprises more than 200 tonnes per year of other waste material, or

(b) that sort, consolidate or temporarily store waste at transfer stations or materials recycling facilities for transfer to another the premises for final disposal, permanent storage, reprocessing, recycling, use or reuse and:

(i) that handle substances classified in the Australian Dangerous Goods Code or medical, cytotoxic or quarantine waste, or
(ii) that have an intended handling capacity of more than 10,000 tonnes per year of waste containing food or livestock, agricultural or food processing industries waste or similar substances, or
(iii) that have an intended handling capacity of more than 30,000 tonnes per year of waste such as glass, plastic, paper, wood, metal, rubber or building demolition material, or

(c) that purify, recover, reprocess or process more than 5,000 tonnes per year of solid or liquid organic materials, or
(d) that are located:

(i) in or within 100 metres of a natural waterbody, wetland, coastal dune field or environmentally sensitive area, or

(ii) in an area of high watertable, highly permeable soils, acid sulphate, sodic or saline soils, or

(iii) within a drinking water catchment, or

(iv) within a catchment of an estuary where the entrance to the sea is intermittently open, or

(v) on a floodplain, or

(vi) within 500 metres of a residential zone or 250 metres of a dwelling not associated with the development and, in the opinion of the consent authority, having regard to topography and local meteorological conditions, are likely to significantly affect the amenity of the neighbourhood by reason of noise, visual impacts, air pollution (including odour, smoke, fumes or dust), vermin or traffic.

(2) This clause does not apply to:

(a) development comprising or involving any use of sludge or effluent if:

(i) the dominant purpose is not waste disposal, and

(ii) the development is carried out in a location other than one listed in subclause (1) (d), above, or

(b) development comprising or involving waste management facilities or works specifically referred to elsewhere in this Schedule, or

(c) development for which State Environmental Planning Policy No 52—Farm Dams and Other Works in Land and Water Management Plan Areas requires consent.

The proposed development would fit the description of a waste management facility, with an intended handling capacity of up to 3,000 tonnes per year of medical waste.

5.3.4 Integrated Development

Clause 91 of the *Environmental Planning and Assessment Act 1979* defines that integrated development is development (not being State significant development or complying development) that, in order for it to be carried out, requires development consent and one or more approvals, including approvals under the *Protection of the Environment Operations Act 1997* (POEO Act).

The proponent will be required to hold an environment protection licence (EPL) under the *Protection of the Environment Operations Act 1997* and, therefore, it constitutes integrated development. Further details on the requirement for an EPL are provided in the following section.

5.3.5 State Significant Development

Under Clause 8 (1) of the *State Environmental Planning Policy (State and Regional Development) 2011*, development is potentially a state significant development if it is specified in Schedule 1 or Schedule 2. Clause 23(5) of Schedule 1 is relevant to the proposed activities:

23 Waste and resource management facilities

(1) Development for the purpose of regional putrescible landfills or an extension to a regional putrescible landfill that:

(a) has a capacity to receive more than 75,000 tonnes per year of putrescible waste, or

(b) has a capacity to receive more than 650,000 tonnes per year of putrescible waste over the life of the site, or
(c) is located in an environmentally sensitive area of State significance.

(2) Development for the purpose of waste or resource transfer stations in metropolitan areas of the Sydney region that handle more than 100,000 tonnes per year of waste.
(3) Development for the purpose of resource recovery or recycling facilities that handle more than 100,000 tonnes per year of waste.
(4) Development for the purpose of waste incineration that handles more than 1,000 tonnes per year of waste.
(5) Development for the purpose of hazardous waste facilities that transfer, store or dispose of solid or liquid waste classified in the Australian Dangerous Goods Code or medical, cytotoxic or quarantine waste that handles more than 1,000 tonnes per year of waste.
(6) Development for the purpose of any other liquid waste depot that treats, stores or disposes of industrial liquid waste and:
(a) handles more than 10,000 tonnes per year of liquid food or grease trap waste, or
(b) handles more than 1,000 tonnes per year of other aqueous or non-aqueous liquid industrial waste.

The proposed development is State Significant as it involves the handling of more than 1,000 tonnes per year of medical waste. Hence, the Minister for Planning would be the consent authority.

5.3.6 Environmental

Under current NSW environmental legislation, two statutory instruments are considered to be relevant for the proposed activities; the *Protection of the Environment Operations Act 1997* (POEO Act) and the *Protection of the Environment Operations Regulation 2009* (POEO Regulation 2009). The following sub-sections include the requirements under these two statutory instruments.

5.3.7 Protection of the Environment Operations Act 1997 & Protection of the Environment Operations (General) Regulation 2009

The Protection of the Environment Operations Act 1997 (POEO Act) establishes the NSW environmental regulatory framework and includes a licensing requirement for certain activities.

The Protection of the Environment Operations (General) Regulation 2009 (POEO Regulation 2009) includes provisions for licensing and notices fees, load based licensing requirements and fees, national pollutant inventory requirements, etc.…

The POEO Act contains a list of activities that require an environment protection licence. These are listed in Schedule 1 of the POEO Act 1997.

Environment Protection Licences are a central means to control the localised, cumulative and acute impacts of pollution in NSW. In particular they aim to:

- *protect, restore and enhance the quality of the environment in NSW, having regard to the need to maintain ecologically sustainable development;*
- *provide increased opportunities for public involvement and participation in environment protection;*
- *ensure that the community has access to relevant and meaningful information about pollution;*
- *rationalise, simplify and strengthen the regulatory framework for environment protection;*
- *improve the efficiency of administration of the environment protection legislation; and*
- *reduce risks to human health and prevent the degradation of the environment by the use of mechanisms that promote the following:*
    - *pollution prevention and cleaner production,*
    - *the reduction to harmless levels of the discharge of substances likely to cause harm to the environment,*
    - *the reduction in the use of materials and the re-use or recycling of materials,*
    - *the making of progressive environmental improvements, including the reduction of pollution at source, and*
    - *the monitoring and reporting of environmental quality on a regular basis.*

5.3.7.1 Specific Provisions

The current activities conducted on site are classified as premises-based scheduled activities under the provisions of the POEO Act 1997 being:
41: Waste processing (non-thermal treatment), and
42: Waste storage

The POEO Act contains a list of activities that are classified as scheduled activities and those that require an environment protection licence. These activities are listed in Schedule 1 of the POEO Act.

Environment Protection Licences are a central means to control the localised, cumulative and acute impacts of pollution in NSW.

The proposed activities will be considered as premises-based activities and are classified as scheduled activities under the provisions of the POEO Act. Hence, the activities do require an Environment Protection Licence possibly for three (3) classifications of scheduled activities as outlined below.

In preparing this report and particularly this Section, many sections of NSW environmental legislation (i.e. POEO Act) were used to demonstrate that the proposed activities will be considered under the provisions of these statutory requirements.

Based on the amended schedule 1 of the POEO Act, three (3) scheduled categories may apply to the activities intended to be undertaken on the premises. These scheduled activities are outlined below.

41: Waste processing (non-thermal treatment)

(1) This clause applies to the following activities:

***"non-thermal treatment of general waste"**, meaning the receiving of waste (other than hazardous waste, restricted solid waste, liquid waste or special waste) from off site and its processing otherwise than by thermal treatment.*

***"non-thermal treatment of hazardous and other waste"**, meaning the receiving of hazardous waste, restricted solid waste or special waste (other than asbestos waste or waste tyres) from off site and its processing otherwise than by thermal treatment.*

***"non-thermal treatment of liquid waste"**, meaning the receiving of liquid waste (other than waste oil) from off site and its processing otherwise than by thermal treatment.*

***"non-thermal treatment of waste oil"**, meaning the receiving of waste oil from off site and its processing otherwise than by thermal treatment.*

***"non-thermal treatment of waste tyres"**, meaning the receiving of waste tyres from off site and their processing otherwise than by thermal treatment.*

(2) However this clause does not apply to the processing of any of the following:

(a) stormwater,

(b) contaminated soil,

(c) contaminated groundwater,

(d) sewage within a sewage treatment system (whether or not that system is licensed).

(2A) The activity of non-thermal treatment of liquid waste is declared to be a scheduled activity if it meets the criteria for that activity set out in Column 2 of the Table to this clause.

(3) Each other activity referred to in Column 1 of the Table to this clause is declared to be a scheduled activity if:

(a) it meets the criteria set out in Column 2 of that Table, and

(b) 50% or more by weight of the total amount of waste received per year requires disposal after processing.

(4) For the purposes of this clause, 1 litre of waste is taken to weigh 1 kilogram.

Table

Column 1	***Column 2***
Activity	***Criteria***
non-thermal treatment of general waste	*if the premises are in the regulated area:(a) involves having on site at any time more than 1,000 tonnes or 1,000 cubic metres of waste, or(b) involves processing more than 6,000 tonnes of waste per year if the premises are outside the regulated area:(a) involves having on site at any time more than 2,500 tonnes or 2,500 cubic metres of waste, or(b) involves processing more than 12,000 tonnes of waste per year*
non-thermal treatment of hazardous and other waste	*involves having on site at any time more than 200 kilograms of waste (other than clinical and related waste), or involves having on site at any time any quantity of clinical and related waste*
non-thermal treatment of liquid waste	*involves having on site at any time more than 200 kilograms of liquid waste (other than clinical and related waste), or involves having on site at any time any quantity of liquid waste that is clinical and related waste*
non-thermal treatment of waste oil	*involves having on site at any time more than 2,000 litres of waste oil, or involves processing more than 20 tonnes of waste oil per year*
non-thermal	*involves having on site at any time (other than in or on a vehicle used to*

treatment of waste tyres	*transport the tyres to or from the premises) more than 5 tonnes of waste tyres or 500 waste tyres, or involves processing more than 5,000 tonnes of waste tyres per year*

42: Waste storage

*(1) This clause applies to **"waste storage"**, meaning the receiving from off site and storing (including storage for transfer) of waste.*

(2) However, this clause does not apply to any of the following:

(a) the storage of stormwater,

(b) the storage of up to 60 tonnes at any time of any of the following kinds of waste (but not when accompanied by any other kind of waste):

(i) drilling mud,

(ii) grease trap waste,

(iii) waste lead acid batteries,

(iv) waste oil,

(c) the storage of sewage within a sewage treatment system,

(d) the storage and transfer of liquid waste that is generated and treated on site prior to sewer discharge, or lawful discharge to waters.

(3) The activity to which this clause applies is declared to be a scheduled activity if:

(a) more than 5 tonnes of hazardous waste, restricted solid waste, liquid waste or special waste (other than waste tyres) is stored on the premises at any time, or

(b) more than 5 tonnes of waste tyres or 500 waste tyres is stored on the premises at any time (other than in or on a vehicle used to transport the tyres to or from the premises), or

(c) more than the following amounts of waste (other than waste referred to in paragraph (a) or (b)) are stored on the premises at any time:

(i) in the case of premises in the regulated area--more than 1,000 tonnes or 1,000 cubic metres,

(ii) in the case of premises outside the regulated area--more than 2,500 tonnes or 2,500 cubic metres, or

(d) more than the following amounts of waste (other than waste referred to in paragraph (a) or (b)) is received per year from off site:

(i) in the case of premises in the regulated area--6,000 tonnes,

(ii) in the case of premises outside the regulated area--12,000 tonnes.

(4) For the purposes of this clause, 1 litre of waste is taken to weigh 1 kilogram.

Due to the fact that the annual waste processing capacity is 3,000 tonnes and the waste storage of more than 5 tonnes at any one time of hazardous waste. Therefore, the above provisions apply to this development and an Environment Protection Licence (EPL) from the EPA is required. However, the proponent has already an active and current EPL for these activities.

The applicant would need to make a separate application to the EPA for consideration of the potential proposed licence modifications following approval by the Department. The applicant has advised that an appropriate application for a licence variation will be lodged with the EPA following the Department's approval.

Section 45 of the POEO Act includes the matters to be taken into consideration in licensing functions (i.e. licence variation application). These matters are outlined in Table 5-1 including comments, where relevant.

Table 5-1: Factors to be considered under Section 45 of the POEO Act

Clause No	Requirements	Relevance
A	any protection of the environment policies,	No
B	the objectives of the EPA as referred to in section 6 of the *Protection of the Environment Administration Act 1991*,	Yes
C	the pollution caused or likely to be caused by the carrying out of the activity or work concerned and the likely impact of that pollution on the environment,	Yes
D	the practical measures that could be taken: 1) to prevent, control, abate or mitigate that pollution, and 2) to protect the environment from harm as a result of that pollution,	Yes
E	any relevant green offset scheme, green offset works or tradable emission scheme or other scheme involving economic measures, as referred to in Part 9.3,	No
F	whether the person concerned is a fit and proper person (as referred to in section 83),	Yes
f1	in relation to an activity or work that causes, is likely to cause or has caused water pollution: 1) the environmental values of water affected by the activity or work, and 2) the practical measures that could be taken to restore or maintain those environmental values	Yes
G	in connection with a licence application relating to the control of the carrying out of non-scheduled activities for the purpose of regulating water pollution—whether the applicant is the appropriate person to hold the licence having regard to the role of the applicant in connection with the carrying out of those activities,	No
H	in connection with a licence application—any documents accompanying the application,	Yes
I	in connection with a licence application—any relevant environmental impact statement, or other statement of environmental effects, prepared or obtained by the applicant under the *Environmental Planning and Assessment Act 1979*,	Yes
J	in connection with a licence application—any relevant species impact statement prepared or obtained by the applicant under the *Threatened Species Conservation Act 1995* or Part 7A of the *Fisheries Management Act 1994*,	No
K	in connection with a licence application, any waste strategy in force under the *Waste Avoidance and Resource Recovery Act*	No

Clause No	Requirements	Relevance
	2001,	
L	in connection with a licence application: 1) any public submission in relation to the licence application received by the appropriate regulatory authority under this Act, and 2) any public submission that has been made under the *Environmental Planning and Assessment Act 1979*, in connection with the activity to which the licence application relates, and that has been received by the appropriate regulatory authority,	Yes
M	if the appropriate regulatory authority is not the EPA—any guidelines issued by the EPA to the authority relating to the exercise of functions under this Chapter	No

Section 44 of the POEO Act includes clarification on the integration of licensing

1) Licences may be issued or varied so as to cover either or both scheduled development work or scheduled activities.
2) Licences with respect to scheduled development work or scheduled activities may regulate all forms of pollution (including water pollution) resulting from that work or those activities.
3) Licences with respect to non-scheduled activities may also regulate any form of pollution in addition to water pollution resulting from those activities.

Licences authorising or controlling an activity carried on at any premises may also regulate pollution resulting from any other activity carried on at the premises to which the licence applies.

Section 58 of the POEO Act provides the following provisions for any applications for variation of licences:

(1) The appropriate regulatory authority may vary a licence (including the conditions of a licence).
(2) A variation includes the attaching of a condition to a licence (whether or not any conditions have already been attached), the substitution of a condition, the omission of a condition or the amendment of a condition.
(3) A licence may be varied on application by the holder of the licence or on the initiative of the appropriate regulatory authority.
(4) A licence may be varied at any time during its currency, including on its being transferred to another person.
(5) A licence is varied by notice in writing given to the holder of the licence.
(6) If:
(a) the variation of a licence will authorise a significant increase in the environmental impact of the activity authorised or controlled by the licence, and
(b) the proposed variation has not, for any reason, been the subject of environmental assessment and public consultation under the *Environmental Planning and Assessment Act*

1979, the appropriate regulatory authority is to invite and consider public submissions before it varies the licence.

Section 59 of the POEO Act provides the following provisions for restrictions on making applications for variation of licences

(1) An application for the issue of a licence that relates to premises may be made only by or with the consent in writing of the occupier of the premises.
(2) An application for the variation of a licence may be made only by or with the consent in writing of the holder of the licence.
(3) An application for the transfer of a licence may be made only with the consent in writing of the holder of the licence.

5.3.8 Licensing

The Environment Protection Licences No 12609 and No 20233 (EPLs) were issued by EPA on 27 November 2006 and 3 September 2013 respectively. EPLs are subject to periodic compliance and monitoring requirements and their review was scheduled for 27 November 2021 and 3 September 2018 respectively unless the EPA decided to review them earlier as provided in the Protection of the Environment Operations Act 1997 (POEO Act 1997).

The EPLs includes criteria which are specified in accordance with current environmental legislation, policies, guidelines and industry standards for water, noise and dust emissions. In addition, it includes monitoring and reporting conditions to ensure that the activities conducted on site are in compliance with the EPL conditions and the criteria referred to above.

Following determination of this application, the proponent will liaise with the EPA regarding the issue of an amended EPL. A formal licence variation application must be submitted to the EPA for its consideration to ensure consistency with the Development Consent conditions. In any case, the Department will consult with the EPA as part of the planning process in accordance with current planning legislation for Integrated Developments.

We have been advised that EPA authorised officers have inspected the site on more than one occasion as part of routine compliance inspections. The EPA officers have expressed their absolute satisfaction with the environmental management of the activities undertaken on site. The officers also commented on the efficient and effective treatment of clinical waste using the autoclaving method which is endorsed by most Government Departments as being the most environmentally responsible method of treating such waste. Based on the outcome of these compliance inspections and the EPA's POEO related Public Register, no non-compliances have been ever registered against the proponent since its operations commenced on site in 2013. Furthermore, no regulatory actions (Penalty Notices or other types of statutory notices) have ever been issued by the EPA to the proponent.

5.3.9 Waste Classification Guidelines

At the time of receiving the waste at the Kenoma Place facility, waste collected and processed by State Waste Services is defined as *clinical waste* in accordance with the definition included in the Protection of the Environment Operations Act 1997 (POEO Act).

Since the waste received on site is classified as special waste under the *NSW Waste Classification Guidelines – Part 1: Classifying waste*, we provide the following definitions to assist the reader to get a better understanding of current waste classification of these materials.

Special waste *is a class of waste that has unique regulatory requirements. The potential environmental impacts of special waste need to be managed to minimise the risk of harm to the environment and human health. Special waste means any of the following:*

- *clinical and related waste*
- *asbestos waste*
- *waste tyres*
- *anything classified as special waste under an EPA gazettal notice.*

Generators of special waste do not need to make any further assessment of their waste if it falls within the definitions of special wastes.

The only exception to this is where special waste is mixed with restricted solid or hazardous waste. In these circumstances, the waste must be classified as special waste and restricted solid or hazardous waste (as applicable), and managed under both of those classifications.

The meanings of the terms clinical and related waste, asbestos waste, and waste tyres are detailed below.

Clinical and related waste

Clinical and related waste means:

- *clinical waste*
- *cytotoxic waste*
- *pharmaceutical, drug or medicine waste*
- *sharps waste.*

Clinical waste *means any waste resulting from medical, nursing, dental, pharmaceutical, skin penetration or other related clinical activity, being waste that has the potential to cause injury, infection or offence, and includes waste containing any of the following:*

- *human tissue (other than hair, teeth and nails)*
- *bulk body fluids or blood*
- *visibly blood-stained body fluids, materials or equipment*
- *laboratory specimens or cultures*
- *animal tissue, carcasses or other waste from animals used for medical research*

but does not include any such waste that has been treated by a method approved in writing by the Director-General of NSW Health.

Cytotoxic waste *means any substance contaminated with any residues or preparations that contain materials that are toxic to cells principally through their action on cell reproduction.*

Pharmaceutical, drug or medicine waste *means waste that has been generated by activities carried out for business or other commercial purposes and that consists of pharmaceutical or other chemical substances specified in the Poisons List made under section 8 of the Poisons and Therapeutic Goods Act 1966.*

Sharps waste *means any waste collected from designated sharps waste containers used in the course of business, commercial or community service activities, being waste resulting from the use of sharps for any of the following purposes:*

- *human health care by health professionals and other health care providers*
- *medical research or work on cadavers*
- *veterinary care or veterinary research*
- *skin penetration or the injection of drugs or other substances for medical or non-medical reasons*

but does not include waste that has been treated on the site where it was generated, and to a standard specified in an EPA gazettal notice.

Sharps *means those things:*

- *that have sharp points or edges capable of cutting, piercing or penetrating the skin (such as needles, syringes with needles or surgical instruments)*
- *that are designed for the purpose of cutting, piercing or penetrating the skin*
- *that have the potential to cause injury or infection.*

It is noted that given NSW Health have approved the SWS facility, once treated by the existing autoclave, the finished product is regarded as being *general solid waste (non-putrescible)*, which, in accordance with the POEO Act is defined as:

General solid waste (non-putrescible)
means waste (other than special waste, hazardous waste, restricted solid waste, general solid waste (putrescible) or liquid waste) that includes any of the following:
(a) glass, plastic, rubber, plasterboard, ceramics, bricks, concrete or metal,
(b) paper or cardboard,
(c) household waste from municipal clean-up that does not contain food waste,
(d) waste collected by or on behalf of local councils from street sweeping,
(e) grit, sediment, litter and gross pollutants collected in, and removed from, stormwater treatment devices or stormwater management systems, that has been dewatered so that it does not contain free liquids,
(f) grit and screenings from potable water and water reticulation plants that has been dewatered so that it does not contain free liquids,
(g) garden waste,
(h) wood waste,
(i) waste contaminated with lead (including lead paint waste) from residential premises or educational or child care institutions,

(j) containers, having previously contained dangerous goods, from which residues have been removed by washing or vacuuming,
(k) drained oil filters (mechanically crushed), rags and oil absorbent materials that only contain non-volatile petroleum hydrocarbons and do not contain free liquids,
(l) drained motor oil containers that do not contain free liquids,
(m) non-putrescible vegetative waste from agriculture, silviculture or horticulture,
(n) building cavity dust waste removed from residential premises, or educational or child care institutions, being waste that is packaged securely to prevent dust emissions and direct contact,
(o) synthetic fibre waste (from materials such as fibreglass, polyesters and other plastics) being waste that is packaged securely to prevent dust emissions, but excluding asbestos waste,
(p) virgin excavated natural material,
(q) building and demolition waste,
(r) asphalt waste (including asphalt resulting from road construction and waterproofing works),
(s) biosolids categorised as unrestricted use, or as restricted use 1, 2 or 3, in accordance with the criteria set out in the Biosolids Guidelines,
(t) cured concrete waste from a batch plant,
(u) fully cured and set thermosetting polymers and fibre reinforcing resins,
(v) fully cured and dried residues of resins, glues, paints, coatings and inks,
(w) anything that is classified as general solid waste (non-putrescible) pursuant to an EPA Gazettal notice,
(x) anything that is classified as general solid waste (non-putrescible) pursuant to the Waste Classification Guidelines,
(y) any mixture of anything referred to in paragraphs (a)–(x)

The characterisation of the waste handled is accepted and confirmed in the existing Environment Protection Licence No 12609 (EPL) for the operation. Having *on site at any time any quantity of clinical and related waste* triggers the process as a Schedule 1 activity and as such, the proponent is required to secure amendments to the existing EPL.

5.3.10 Waste Avoidance and Resource Recovery Strategy 2014-2021

The new strategy provides a clear framework for waste management to 2021-22 and provides an opportunity for NSW to continue to increase recycling across all waste streams.

The strategy sets the following targets for 2021–22:

1 avoiding and reducing the amount of waste generated per person in NSW
2 increasing recycling rates to
- 70% for municipal solid waste
- 70% for commercial and industrial waste
- 80% for construction and demolition waste

3 Increasing waste diverted from landfill to 75%

4 Managing problem wastes better, establishing 86 drop-off facilities and services across NSW
5 Reducing litter, with 40% fewer items (compared to 2012) by 2017
6 Combatting illegal dumping, with 30% fewer incidents (compared to 2011) by 2017.

The proposed development is considered as consistent with the EPA's targets set out above.

5.3.11 Contaminated Land Management Act 1997

Under the *Contaminated Land Management Act 1997* it is necessary to establish if the proposed operations would occur on any contaminated land sites to be developed. Given the scope of the proposed development and previous uses of the site, further review or a detailed site investigation assessment are not considered to be necessary in this instance.

5.3.12 Water Act 1912

Licences for water conservation, irrigation, water supply or drainage as well as changing the course of a river can be applied for under the Water Act 1912.

The proposed development does not involve works for water conservation, irrigation, water supply or drainage and does not involve works that would change the course of a river. Water would be sourced from the existing earth dams. Therefore, the Water Act 1912 does not apply.

5.3.13 Water Management Act 2000

The Water Management Act (WMA) 2000 provides requirements for the extraction of water, water use, floodplain and drainage management, the construction of works such as dams and weirs, and undertaking activities on or near water sources in NSW. This Act also incorporates the provisions of various Acts relating to the management of groundwater and surface water in NSW, and provides a single statute for the regulation of water use and works that affect groundwater and surface water, both marine and fresh. The New South Wales Office of Water administers this Act.

Approvals for the extraction and use of water and for the construction of works relating to water use can be obtained under the Act. However, the proposed development does not require the extraction of water from any Regulated River Water Source. Therefore, no approval is required under this Act.

5.3.14 Threatened Species Conservation Act 1995

Any proposals that are required to be determined by a NSW statutory authority are required to be assessed in accordance with the EP&A Act, as amended by the Threatened Species Conservation Act 1995.

An assessment for this site was not considered necessary since the site is well established within a highly industrialised and commercialised area. Since the development consent

approved by Blacktown City Council, no changes have occurred or are likely to occur, within the approved site, which are likely to change the status of the site in relation to any threatened species related matters.

5.3.15 Native Vegetation Act 2003

Clause 12 of the Native Vegetation Act is administered by the Office of Environment and Heritage (OEH) and requires consent from the Minister for the clearing of native vegetation. The proposed development does not include the clearing of any native vegetation.

5.4 STATE ENVIRONMENTAL PLANNING POLICIES

Despite the fact that there are no changes to the already approved activities, we consider it appropriate to include details of all relevant State Environmental Planning Policies (SEPP) for completeness. The following SEPPs may be relevant to the proposed development.

5.4.1 State Environmental Planning Policy (Sydney Region Growth Centres) 2006

This SEPP provides for the coordinated release of land for residential, employment and other urban developments in the North West and South West growth centres of the Sydney Region (in conjunction with Environmental Planning and Assessment Regulation relating to precinct planning). At this stage, the applicant is unaware of land being developed or released for residential occupancy within the immediate vicinity of the site.

5.4.2 State Environmental Planning Policy No. 44 – Koala Habitat Protection

The State Environmental Planning Policy No. 44 – Koala Habitat Protection encourages the conservation and management of natural vegetation areas that provide habitat for koalas to ensure permanent free-living populations will be maintained over their present range. The policy applies to 107 local government areas. The Department cannot approve a development in an area affected by the policy without an investigation of core koala habitat. The policy provides the state-wide approach needed to enable appropriate development to continue, while ensuring there is ongoing protection of koalas and their habitat. No koalas were found or observed within the site or adjoining properties during the preparation of the EIS.

5.4.3 State Environmental Planning Policy No. 55. – Remediation of Land

The State Environmental Planning Policy No. 55. – Remediation of Land introduces state-wide planning controls for the remediation of contaminated land. The policy states that land must not be developed if it is unsuitable for a proposed use because it is contaminated. If the land is unsuitable, remediation must take place before the land is developed. The policy makes remediation permissible across the State, defines when consent is required, requires all remediation to comply with standards, ensures land is investigated if contamination is

suspected, and requires councils to be notified of all remediation proposals. To assist councils and developers, the Department, in conjunction with the EPA, has prepared *"Managing Land Contamination: Planning Guidelines"*.

The proposed development is located within an area that has always been used for industrial activities. The activities are and will continue to be undertaken within a fully concreted and sealed area and no excavations of any kind are proposed as part of the proposed development. Therefore this policy does not apply.

5.4.4 State Environmental Planning Policy (State and Regional Development) 2011

The aims of this SEPP include identifying development that is State significant in nature.
Schedule 1 of the SEPP identifies all development types considered State Significant Development.

Clause 23 identifies various waste management facilities and sub-clause (5) states:

> *(5) Development for the purpose of hazardous waste facilities that transfer, store or dispose of solid or liquid waste classified in the Australian Dangerous Goods Code or medical, cytotoxic or quarantine waste that handles more than 1,000 tonnes per year of waste.*

At 3,000 tonnes per year the proposed development exceeds the threshold and SEARs have been obtained. The application is regarded as State Significant Development.

5.4.5 State Environmental Planning Policy (Infrastructure) 2007

The following clauses of *State Environmental Planning Policy (Infrastructure) 2007* have been considered in specific reference to the proposed development.

Division 23 relates to *waste or resource management facilities*.

Clause 120 nominates the zoning of the subject site as being a *prescribed zone*.

Clause 121(1) permits waste or resource management facilities, with consent, in a prescribed (IN1 in this case) zone.

For the purposes of the SEPP, the current operation is defined as a *waste or resource transfer station*. The proposal is consistent with the SEPP.

5.4.6 State Environmental Planning Policy No 33 – Hazardous and Offensive Development

State Environmental Planning Policy No.33 Hazardous and Offensive Development (SEPP 33) aims to:

- amend the definitions of hazardous and offensive industries where used in environmental planning instruments; and
- render ineffective a provision of any environmental planning instrument that prohibits development for the purpose of a storage facility on the ground that the facility is hazardous or offensive if it is not a hazardous or offensive storage establishment as defined in the Policy; and
- ensure that in determining whether a development is a hazardous or offensive industry, any measures proposed to be employed to reduce the impact of the development are taken into account; and
- ensure that in considering any application to carry out potentially hazardous or offensive development, the consent authority has sufficient information to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimise any adverse impact.

The guidelines associated with the SEPP have been considered in proposing this development. A Preliminary Hazard Analysis (PHA) is required for this proposal as more than 500kg of clinical wastes, a Class 6.2 Dangerous Goods, may be stored on site at any time. The operators of the site request approval for an annual processing of 3,000 tonnes. The PHA appended to this report concludes as follows:

> *The Preliminary Hazard Analysis has found that the operation of the proposed development meets the criteria laid down in HIPAP 4 Risk Criteria for Land Use Safety Planning and would not cause any risk, significant or minor, to the community. Furthermore, the site's proposed operations are not an offensive or hazardous industry based on applying the Department of Planning and Environment guidelines.*
>
> *It is the conclusion of this PHA that the proposed development meets all the safety requirements stipulated by Department of Planning and Environment and would not be considered to be an offensive or hazardous development.*

5.5 LOCAL PLANNING INSTRUMENTS

This section addresses the planning instruments that apply in the Blacktown City Council Local Government Area.

5.5.1 Blacktown Local Environmental Plan 2015

The Blacktown Local Environmental Plan 2015 (BLEP) is the primary environmental planning instrument relating to the proposed development. The objectives of the BLEP are as follows:

(a) to recognise the role of the urban renewal precincts as the major locations for higher density residential and employment development for the city,

(b) to ensure that appropriate housing opportunities are provided for all current and future residents through diversity of housing choice,

(c) to provide land for community facilities, public purposes and recreational pursuits,

(d) to encourage development opportunities for business and industry so as to deliver local and regional employment growth,

(e) to minimise risk to the community by restricting development in sensitive areas that are subject to flooding and other hazards,

(f) to provide for infrastructure to maintain and meet demands arising from housing and employment growth,

(g) to conserve and enhance Blacktown's built, natural and cultural heritage,

(h) to conserve, restore and enhance biological diversity and ecosystem health, particularly threatened species, populations and communities.

It is submitted that the proposed development is not inconsistent with these objectives.

The subject site is zoned *IN1 General Industrial.* The objectives of the IN1 zone listed in LEP are:

- *To provide a wide range of light industrial, warehouse and related land uses.*
- *To encourage employment opportunities and to support the viability of centres.*
- *To minimise any adverse effect of industry on other land uses.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.*
- *To support and protect industrial land for industrial uses.*
- *To minimise adverse impacts on the natural environment.*

The proposed development is consistent with the objectives in that:

- The site will continue to accommodate an existing approved business that contributes to the wider range of industrial land uses in the Arndell Park precinct.
- Some additional employment opportunities will arise out of this application (additional contract drivers).
- The resultant development will not create any adverse effect on other land uses.
- The use continues to be permissible in the zone.
- Any potential environmental impacts are negligible and will continue to be managed on site.

The following relevant clauses have also been considered in respect of this development proposal.

Part 4 Principal Development Standards:			
Standard	**Permitted**	**Proposed**	**Comment**
4.1 Minimum subdivision lot size:	N/A	N/A	No subdivision is proposed as part of this DA.
4.2 Rural Subdivision:	N/A	N/A	No subdivision is proposed as part of this DA. The subject site is within an industrial zone.
4.3 Height of Buildings:	N/A	N/A	No construction is proposed as part of this application.
4.4 Floor Space Ratio	N/A	N/A	-

Part 5 Miscellaneous Provisions	
Provision	**Comment**
5.1 Relevant acquisition authority	N/A
5.2 Classification and reclassification of public land	N/A
5.3 Development near zone boundaries	N/A
5.4 Controls relating to miscellaneous permissible uses	N/A
5.5 Development within the coastal zone	N/A
5.6 Architectural roof features	N/A
5.7 Development below mean high water mark	N/A
5.8 Conversion of fire alarms	N/A
5.9 Preservation of trees and vegetation	N/A
5.9AA Trees or vegetation not prescribed by development control plan	N/A
5.10 Heritage conservation	N/A
5.11 Bush fire hazard reduction	N/A
5.12 Infrastructure development and use of existing buildings of the Crown	N/A
5.13 Eco-tourist facilities	N/A
5.14 Siding Spring Observatory – maintaining dark sky	N/A
5.15 Defence communications facility	N/A
Part 6 Urban release areas	
Provision	**Comments**
6.1 Arrangements for designated State public infrastructure	N/A
6.2 Public utility infrastructure	N/A
6.3 Development control plan	N/A
6.4 Relationship between Part and remainder of Plan	N/A
Part 7 Additional Local Provisions	

Provision		Comment
7.1	Flood planning	N/A
7.2	Terrestrial Biodiversity	N/A
7.3	Riparian land and watercourses	N/A
7.4	Active street frontages	N/A
7.5	Essential services	N/A
7.6	Converting serviced apartments to residential flat building	N/A
7.7	Design excellence	N/A
7.8	Development of certain land in Zone IN1	The measurement tool on the SIX Maps website was used as follows  The subject site is in excess of 400m from the nearest residential properties/zoning. The clause is therefore not applicable.
7.9	Development with frontage to certain roads in Zone SP2	N/A
7.10	Minimum site requirements for development on certain land	N/A
7.11	Parklea Markets	N/A
7.12	Development in Zone B4	N/A
7.13	Location of restricted premises and sex services premises	N/A

There are no other clauses considered to be relevant to the proposed development.

5.5.2 Blacktown Development Control Plan 2015

Development Control Plans contain finer grain planning controls in respect of specific development types.

Part E of the DCP contains provisions that are specific for Industrial zones in the Blacktown LGA, however it is noted that no works are proposed as part of this application. Nonetheless an assessment against the relevant part of Part E follow:

Part E: Development in the Industrial Areas		
Section		**Comment**
1.	Introduction	N/A
2.	Ancillary commercial premises in the industrial, B5 and B7 zones	The site is in an IN1 zone so this section is not applicable.
3.	Subdivision of industrial land	No subdivision is proposed.
4.	Design guidelines	No construction is proposed.

5.	Specific controls for the Huntingwood Industrial Estate	The site is not within the Huntingwood Industrial Estate
6.	Specific controls for the B7 Business Park zone	The site is not in a B7 Business Park zone.
7.	General	The main relevant issue raised in this section relates to parking and this is addressed later in this report.
8.	Sex services premises in industrial zones	N/A

There are no other aspects of the DCP that are specifically relevant to the proposal or that require detailed consideration.

6. ENVIRONMENTAL ASSESSMENT

6.1 CONTEXT AND SETTING

No physical changes are proposed to the subject site. Some increases in traffic movements will arise however there is nothing about this proposal that would be inconsistent with the wide range of industrial uses that are carried out in the locality. The accompanying Traffic Impact Assessment details the expected changes and resultant impacts.

6.2 CONSTRUCTION

No construction activities are proposed as part of this application. No new structures will be built as part of this development.

6.3 SITE DESIGN AND INTERNAL DESIGN

There are no physical works proposed as part of this application. The existing site can adequately accommodate the increased processing capacity. No additional plant is required or proposed. Whilst additional bins will be required to be purchased as processing quantities increase, these will continue to be able to be managed on site when collected and cleaned.

6.4 ACCESS, TRAFFIC AND TRANSPORT

Based on our instructions, a comprehensive Traffic Impact Assessment (Ref: 16-031) and a Transport Incident Management Strategy (Ref: 16-031-2) were prepared by Stanbury Traffic Planning.

Traffic Impact Assessment

The Traffic Impact Assessment (TIA) was based on the following documents:

- The Roads & Maritime Services' *Guide to Traffic Generating Developments*;
- Blacktown City Council's Blacktown Development Control Plan 2015 (DCP 2015);
- Australian Standard for *Parking Facilities Part 1: Off-Street Car Parking* (AS2890.1:2004);
- Australian Standard for Parking Facilities Part 2: Off-Street Commercial Vehicle Facilities (AS2890.2:2002); and
- Australian Standard for *Parking Facilities Part 6: Off-Street Parking for People with Disabilities* (AS2890.6:2009).

The TIA took into consideration existing use of the site and surrounding uses. A full analysis of the existing and proposed operational characteristics was undertaken to determine the existing traffic limitations, if any, and the potential traffic limitations of the proposed development, if any, to ensure that the proposed development will comply with all current policies, guidelines Australian Standards as outlined above.

During the traffic assessment, in addition to the operations constraints, the number of employees, hours of operations and vehicle fleet were taken into consideration.

As part of the assessment, the proposed operations characteristics were compared with the existing approved operations characteristics to determine the extent of potential impact on the traffic in the surrounding streets. However, when considering that the difference between the proposed and existing activities was the increase in operating hours from 37.5 per week to 72.

The proposed increase in waste processing will result in an increase in traffic movements as outlined below.

- From 36 to 58 daily movements. However, the daily movements are now spread into a 12 hours rather than 6-7 hours working day. This means that the hourly vehicle movements is likely to be less than what is currently approved ,
- From 11 to 13 vehicle movements during the morning peak hours; and
- From 5 to 11 vehicle movements during the evening peak hour.

The existing six (6) parking spaces are considered to satisfy the requirements of Blacktown DCP 2015. All existing passenger vehicle parking spaces and their internal manoeuvrability were found to be in compliance with the relevant specifications of AS2890.1-2004 and AS2890.6-2009.

Furthermore, assessment against the requirements of AS2890.2-2002 associated with the internal heavy vehicle (MRVs) manoeuvring arrangements outside the building found that the vehicles servicing the facility are capable of manoeuvring within the site in a safe and efficient manner.

The assessment included also the surrounding road network to determine whether the proposed increase of processing capacity might have a potential impact on that network of any significance that warrant any mitigation measures or strategies.

The TIA included the results of the computer modelling using SIDRA for both existing and proposed activities at several intersections in the vicinity of the site. These outputs were compared to the Roads & Maritime Services "*Level of Service Criteria for Intersections – Give ways and Stop Signs*". **Table 6-1** includes the RMS criteria. **Table 6-2** includes the output for the existing conditions which have been modelled utilising the existing peak hour traffic volumes presented in **Figure 6.1**. **Table 6-3** includes the output for the proposed conditions which have been modelled utilising the proposed peak hour traffic volumes presented in **Figure 6.2**.

Table 6-1: RMS Level of Service Criteria for Intersections – Give Way and Stop Signs

LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS GIVE WAY & STOP SIGNS		
Level of Service	Average Delay per Vehicle (secs/veh)	Expected Delay
A	Less than 14	Good
B	15 to 28	Acceptable delays and spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Near capacity
E	57 to 70	At capacity and requires other control mode
F	> 70	Unsatisfactory and requires other control mode

Table 6-2: SIDRA Output for the Existing Peak Hour Traffic Volumes

SIDRA OUTPUT – EXISTING WEEKDAY PEAK HOUR PERFORMANCE		
	AM	PM
Vangeli Street Approach		
Delay	13.9	20.9
Degree of Saturation	0.14	0.43
Level of Service	A	B
Eastern Holbeche Road Approach		
Delay	5.6	5.6
Degree of Saturation	0.17	0.29
Level of Service	A	A
Western Holbeche Road Approach		
Delay	8.7	10.0
Degree of Saturation	0.32	0.24
Level of Service	A	A
Total Intersection		
Delay	3.5	3.9
Degree of Saturation	0.32	0.43
Level of Service	A	B

Figure 6-1: Existing Weekday Commuter Peak Day Traffic Volumes – Holbeche Rd & Vangeli St

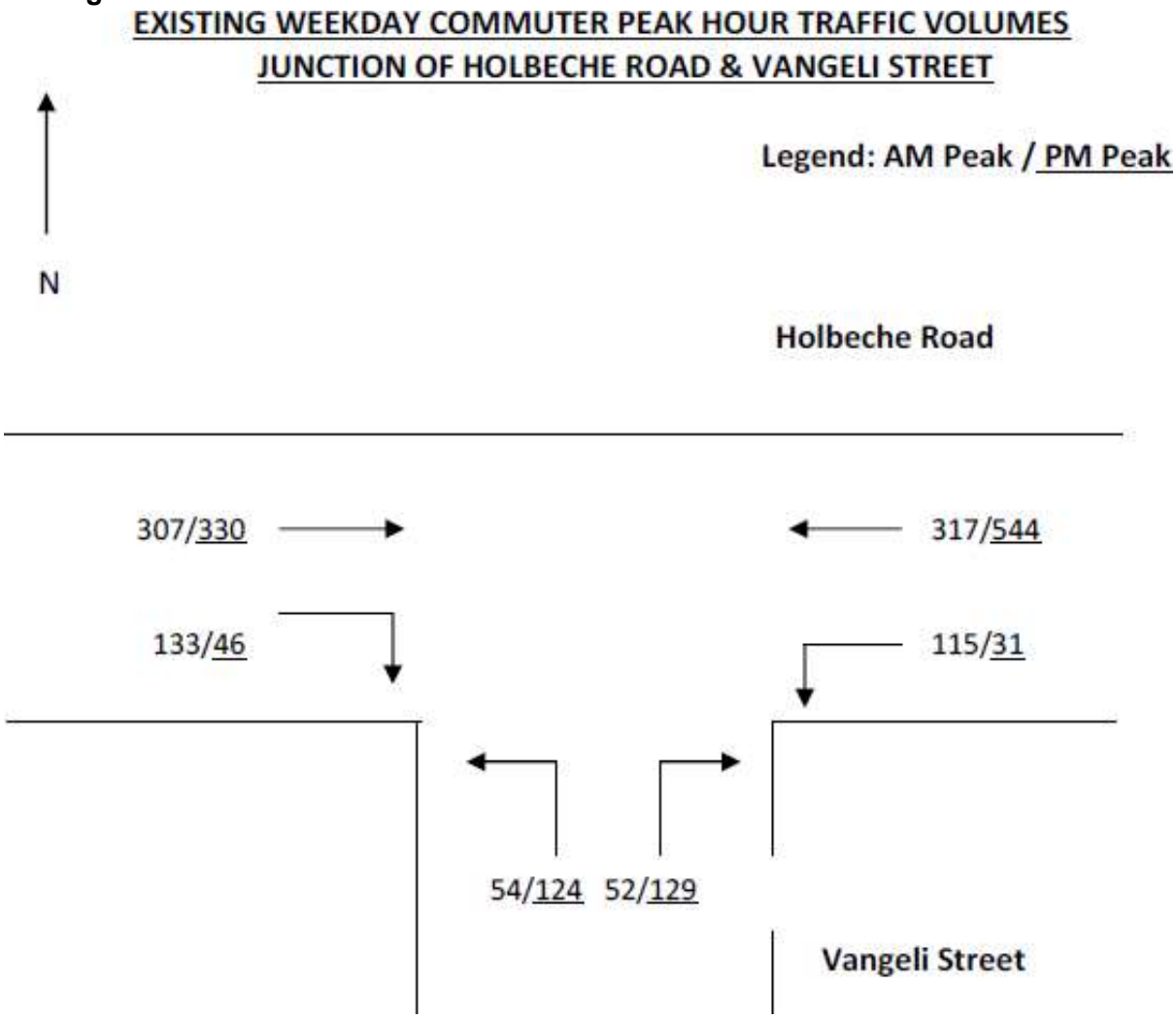
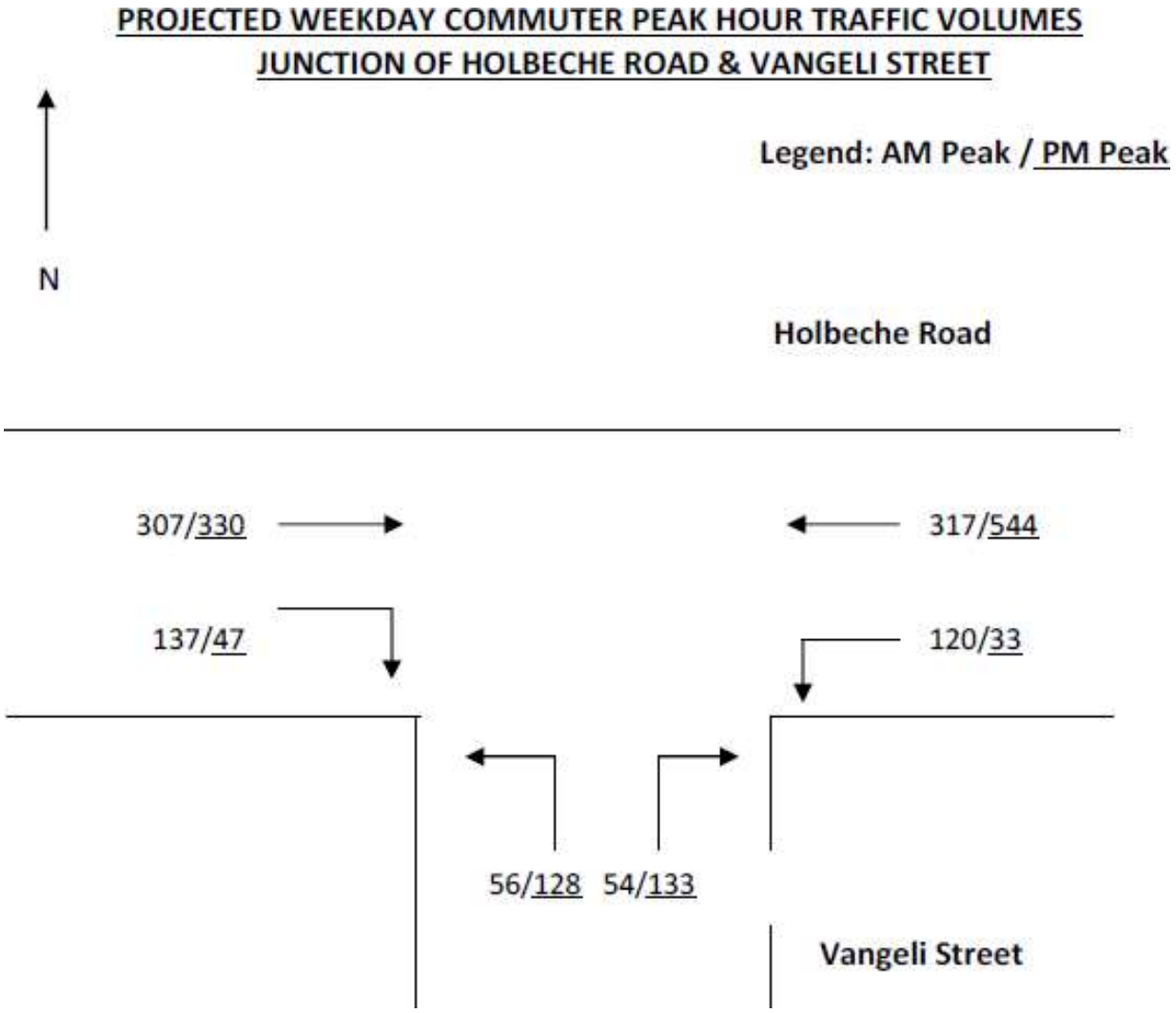


Table 6-3: SIDRA Output for the Peak Hour Performance

SIDRA OUTPUT – WEEKDAY PEAK HOUR PERFORMANCE				
	Existing Conditions		Projected Conditions	
	AM	PM	AM	PM
Vangeli Street Approach				
Delay	13.9	20.9	14.1	21.2
Degree of Saturation	0.14	0.43	0.14	0.44
Level of Service	A	B	A	B
Eastern Holbeche Road Approach				
Delay	5.6	5.6	5.6	5.6
Degree of Saturation	0.17	0.29	0.17	0.29
Level of Service	A	A	A	A
Western Holbeche Road Approach				
Delay	8.7	10.0	8.8	10.0
Degree of Saturation	0.32	0.24	0.32	0.24
Level of Service	A	A	A	A
Total Intersection				
Delay	3.5	3.9	3.6	4.1
Degree of Saturation	0.32	0.43	0.32	0.44
Level of Service	A	B	A	B

Figure 6-2: Projected Weekday Commuter Peak Day Traffic Volumes – Holbeche Rd & Vangeli St



Based on the existing and projected weekday peak hours performance at the nearest sensitive intersection (Holbeche Road and Vangeli Street) the SIDRA output demonstrated that the performance remained the same. In summary, the additional traffic generated by the proposed development is not projected to have noticeable impacts on operation of the intersection with only minor alterations projected with respect to delay and degree of saturation. On that basis, this intersection level of service is projected to remain unaltered, representing good conditions with spare capacity.

The driveway to the site at the cul-de-sac Kenoma Place was found to provide the vehicles entering and leaving the site with safe and efficient access.

Based on the above assessments, the following conclusions can be drawn:

- The expanded facility operations are proposed through an extension of the existing operational hours to accord with the current approval and licence to operate between 7:00am – 7:00pm Monday to Saturday;

- No alterations to the existing site access, internal circulation, servicing and built form arrangements are proposed;

- The existing site operations generate up to 11 peak hour vehicle movements to and from the site;

- The surrounding road network currently provides motorists with a reasonable level of service;

- The projected site operations are envisaged to generate up to 13 peak hour vehicle movements to and from the site;

- The minimal level of additional traffic projected as a result of the proposed expanded site operations is not anticipated to result in any noticeable impacts on the surrounding road network;

- The existing site access arrangements are projected to continue to provide vehicles up to and including MRVs with satisfactory conditions with which to access and vacate the site;

- The existing on-site passenger vehicle parking provision is projected to continue to satisfactorily accommodate the maximum instantaneous parking demand of the expanded site operations; and

- The existing on-site internal circulation and servicing layout are projected to continue to provide vehicles up to and including MRVs with satisfactory manoeuvring arrangements.

- It is considered there are no traffic related issues that should prevent approval of the subject application.

Transport Incident Management Strategy

Based on the requirements of the Roads and Maritime Services (RMS), in addition to the Traffic Impact Assessment required to be prepared, a Transport Incident Management Strategy (TIMS) must be prepared due to the nature of the waste to be transported to the facility. The waste is classified as special waste in accordance with NSW EPA's waste classification guidelines. The waste is also classified as Dangerous Goods with classes 6.1 and 6.2.

Since there is the potential for accidents and/or incidents to occur while the waste is being transported from the source to the treatment/processing facility of SWS, it is necessary that a TIMS be prepared to ensure that any incidents (or accidents) that may result in the release of any of these wastes in the environment, there is a comprehensive strategy that will deal with the materials promptly to prevent or at least minimise the potential impact on human health and the environment.

It should be noted that the current Environment Protection Licence issued by the EPA to SWS for the transport of waste is also accompanied by a Pollution Incident Response Management Plan (PIRPM) in accordance with current EPA legislation.

Several documents including legislation, policies and guidelines were referred to during the preparation of the strategy to ensure that all possible requirements are captured in the strategy.

The strategy was based on the most commonly used approach to incident management which is called PAMM which stands for Prepare – Assess – Manage – Mitigate.

Since this strategy is associated with the transport of waste only, the PAMM approach was applied to the transport component of the proposed development.

The four (4) main components of the strategy can be summarised as follow:

Prepare which mainly based on improving the organisational readiness,
Assess which is based mainly on identifying and evaluating incidents,

Manage which is based on the containment and recovery of materials involved in the incident,

Mitigate which is based on the proper and efficient documentation of the results as well as improving the performance of all involved.

Following the preparation of the strategy, it will be necessary for the proponent to implement it, monitor its effectiveness and review it regularly.

No unacceptable impacts are expected from a traffic perspective. No mitigation measures are required for this aspect of the project.

6.5 PUBLIC DOMAIN

The proposal is not considered to have a detrimental impact on the public domain. No physical works are proposed to the building and the changes sought in this application when compared to the existing approved operation would be imperceptible. No further consideration of this issue is required.

6.6 UTILITIES

The site is appropriately serviced with the required utilities at the moment. No augmentation is required to accommodate the proposed development. No further consideration of this issue is required. The site is already connected to potable water, sewer, electricity, gas, telephone and internet.

6.7 NATURAL HAZARDS

The proposal is not considered to result in any natural hazards. No further consideration of this issue is required.

6.8 SAFETY, SECURITY & CRIME PREVENTION

The proposal is not considered to generate any significant safety or security issues. No further consideration of this issue is required.

6.9 SOCIAL AND ECONOMIC IMPACT

The proposed amendment to the existing facility will have a positive impact with additional employment opportunities arising (two additional contract drivers). There are no negative social impacts expected.

6.10 WATER

Water will continue to be supplied by Sydney Water Corporation. Some increase in water supply will be required as a result of the extended period of autoclave operation.

As previously stated a comprehensive surface water management assessment is not required for the following reasons:

- The site is fully concreted except for a small section near the driveway. This section forms the landscaping area and is used solely for landscaping purposes. SWS continue to maintain that landscaped area in accordance with Council requirements,
- The collection, transport and the treatment process of waste can be considered as a dry process since the steam is introduced to the process as a separate stream rather than being mixed with the waste,
- Any water likely to be spilled or leaked within the building will be contained within the fully sealed and bunded building. Similarly, any other liquids (i.e. disinfectants) spilled inside the building will be contained within the building. These can be cleaned up using existing spill kits and clean-up kits.

Wastewater will be produced, albeit on a small scale, from the washing of the waste collection bins. Since the bins are protected from the contents because of the double sealed bags, the washing of the bins is more for presentation purposes than for any necessary cleaning required as a result of carrying the waste.

Current Trade Waste Agreement with Sydney Water Corporation provides SWS with a maximum of 329 KL/year as volume to be discharged to sewer. Currently the average yearly discharge of wastewater to sewer including domestic liquid waste (since they are both included in the same bill) 290KL/year.

Accordingly, domestic grade detergents are used and are being disposed of through the Trade Waste Agreement (TWA) made with Sydney Water Corporation.

Due to the small size of the active working area within the fully sealed and bunded building, and the limited activities that are likely to generate uncontrolled quantities of wastewater, a comprehensive wastewater management plan is not required. However, within the site layout or Emergency Response Plan, it is advisable that the following information be included:

- ✓ Locations of potential sources of wastewater,
- ✓ All bunding in place,
- ✓ Location of spill kits, and
- ✓ Incident response management plan to a possible water contamination event.

It is expected that the above information will be included in the Pollution Incident Response Management Plan (PIRMP) which will be required by the EPA following the approval of the proposal. It should be noted that SWS has already an EPA approved PIRMP that may require only some minor amendments to ensure it is updated according to the requirements of the new proposal.

All liquid waste runoff, if any from the machine is directed into the sewer system for removal. The quantities disposed of are limited by the terms of a Trade Waste Agreement specified by Sydney Water Corporation. As the Trade Waste Licence is renewed periodically, Sydney Water Corporation has been and will continue to undertake their own inspections and monitoring to ensure the activity is operating within the parameters of that licence. Sydney Water Corporation is also monitoring the total quantity of liquid waste generated through an electronic system which records the volumes discharged into the sewer system to monitor these volumes while the activity operates.

The continued monitoring of this disposal would be undertaken by Sydney Water Corporation to ensure the agreed volumes are not then exceeded.

The Applicant has voluntarily bunded the whole building including all processing and cleaning areas and has provided spill kits in the unlikely event of an incident requiring attention.

The water used to collect the steam within the water tanks, is used as a close loop circuit since the main reasons for this water are to reduce the visual impact of the steam being emitted from the stack and to remove any odours, if any, is carried over with the steam. The result is that no steam is emitted to atmosphere and certainly no odours are emitted via the steam stream. Also, no steam is visible and certainly no increase in risk as a result of potential fallouts from the steam under adverse weather conditions. All steam is diverted by piping to the water tank. After this water is re-used several times within the closed loop circuit, it is discharged to the sewer as per the TWA with Sydney Water Corporation (SWC). Similarly, the water used to clean the bins and the domestic grade disinfectants used to disinfect the bins are discharged directly to sewer in accordance with the same trade waste agreement with SWC.

6.10.1 Stormwater

As previously stated, there is no connection of the fully concreted, sealed and bunded building with any stormwater drain. Therefore there is no potential for any non-clean water from leaving the active working areas within the building and entering the stormwater system. Any water generated within the building by any process is dealt with as previously described with the ultimate solutions of either being discharged to sewer or pumped out and transported to a lawfully licensed liquid waste treatment facility, if it is absolutely necessary.

The bunded area is approximately 500 m^2 and the height of the bund is approximately 200 mm or 0.2 m. Therefore the volume of the bunded area is 100 m^3 which is equivalent to 100,000 litres. Based on the current capacities of all water tanks on site and provided that all tanks and pumps fail, the bunded area is more than capable of capturing all clean and non-clean water.

Furthermore, all stormwater which is outside the building will continue to be the same depending of the rainfalls and it is not affected in any way with the increase in waste processing. This stormwater will continue to drain to the existing Council stormwater system as it has been for the last 15 years and as previously approved by Council without any changes.

As previously advised on more than one occasion:

- There is no stormwater connection from or to the fully concreted, sealed and bunded building where all activities associated with processing waste is undertaken,
- Stormwater cannot enter the building from any place,
- Similarly, no water can leave the building except to the sewer (directly and indirectly),
- Rainwater will fall on the concreted area outside the building and drain by gravity to Council's stormwater system as it has been approved and maintained for over 15 years.

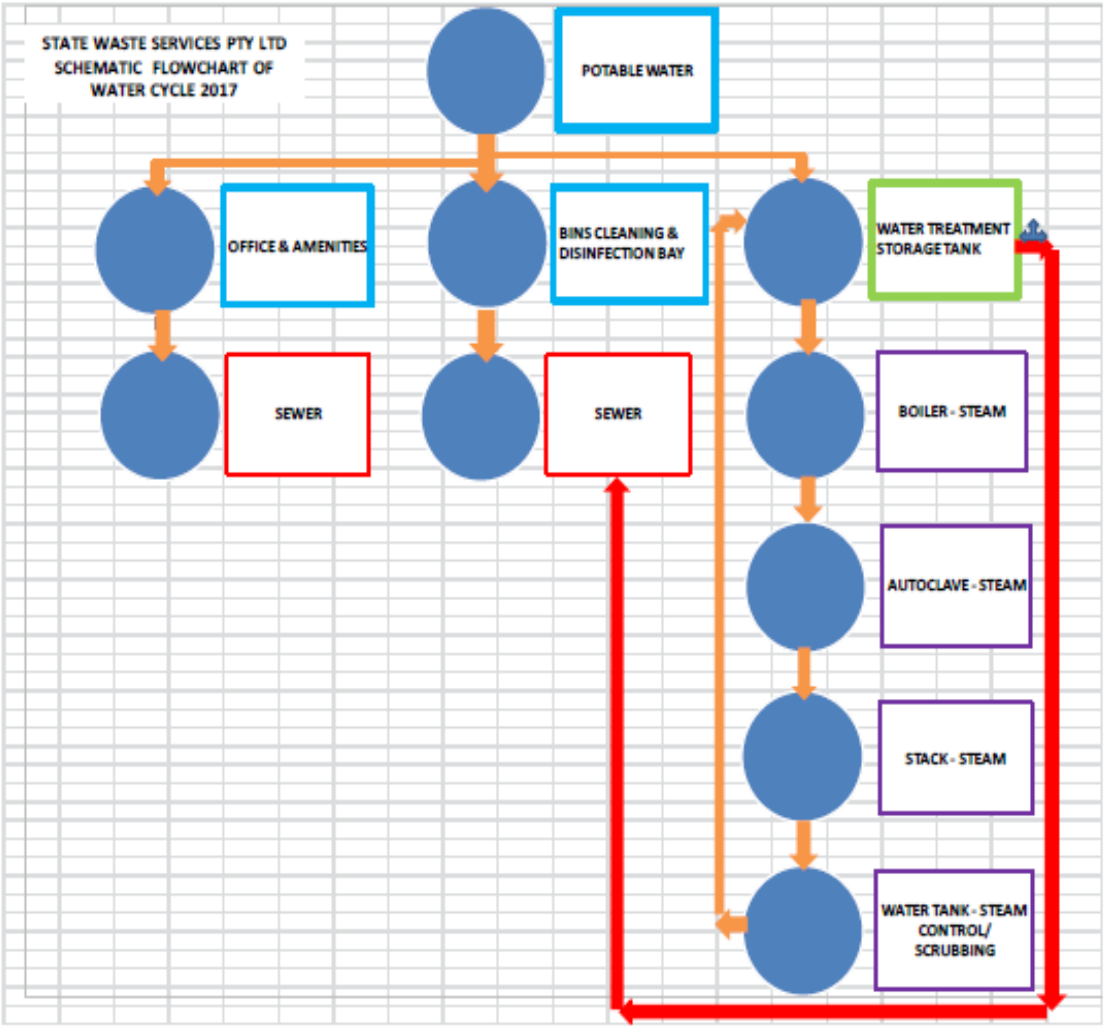
These arrangements have been in place for 10-15 years.

There is no change to rainwater falling in that area or to rainwater/stormwater draining by gravity to Council's existing stormwater system

In summary, there is no need for any stormwater to be collected or stored since it is outside the active working area. This was previously approved by Council as it was considered to be compliant with Council's requirements.

Figure 6-3 provides a schematic flowchart of the water cycle at SWS. A larger and clearer image is included in **Appendix K**.

Figure 6-3: SWS schematic flowchart of the water cycle



6.10.2 Flooding

We know that flooding can cause significant damage, both tangible and intangible, with potentially short term and long term impacts on properties and living things (people, animals, birds, etc.….). So to protect our future livelihood, Governments at all levels especially at the local government levels have adopted a number of Floodplain Risk Management Plans wherever a potential for flooding exists.

Furthermore, following review of relevant flood management documents and maps at Blacktown City Council website, we drew the following conclusions:

- None of the areas occupied by the proponent are within any of the potentially flood prone zones,
- The list of floodplain areas does not encroach on the areas occupied by the proponent.

6.11 SOILS

Based on discussions with the current and previous landlord of the site as well as the landlords of neighbouring properties, it is clear that the site had been used as an industrial site for over 10 years. This finding was supported after reviewing Blacktown City Council files associated with the site as part of a "*Due-Diligence*" application made by NICS.

On that basis, it was considered that the best assessment approach would be an initial evaluation in accordance with "*State Environmental Planning Policy No. 55 – Remediation of Land"* and the Department of Planning Guidelines titled: "*Managing Land Contamination – Planning Guidelines – SEPP 55 – Remediation of Land - 1998"* (Guidelines).

Despite the fact that we believe that previously approved activities are considered non-contaminating, it was considered appropriate to undertake an initial evaluation based on Section 3.2 of the Guidelines. These Guidelines state *"This initial evaluation can be based on* ***readily available factual information*** *and should be carried out* ***regardless of the nature of the proposed use or the current use****. Readily available information may include: current zoning and permissible uses, records from previous rezonings, development applications and building applications for the site, property files, information provided by the owner or proponent should be checked against information held by the planning authority on the subject land and, if available, adjoining properties. ….. However, it is recognised that a site inspection may not be feasible or practical in all cases and it is not suggested as a mandatory requirement".*

This initial evaluation included searches of relevant local and state databases which should provide a clear indication of possible contamination on site, if any.

Based on Blacktown City Council, the following can be concluded:

- The site does not include or comprise a crucial environmental habitat,
- The site is not within a conservation area,
- An item of environmental heritage is not situated within the site,
- There are no matters arising under the Contaminated Land Management Act 1997.

We confirm that based on our comprehensive site inspections, there are no signs of any contamination. Our site inspections included the whole site but focussed on the areas within and adjacent to the existing building where contamination may accumulate over the years.

A search of the EPA's POEO Public Register on 5 May 2016 revealed that no statutory notices have been issued for any matter associated with the site.

A search of the EPA's register for contaminated lands on 5 May 2016 revealed that this site is not the subject of any notice under the Contaminated Land Management Act 1997.

Furthermore, under normal circumstances and for new development where excavations of exposed soil is required, under the Contaminated Land Management Act 1997, a Stage 1: Preliminary Site Investigation (PSI) would be required as a minimum. If the results of the PSI identify any potential soil contamination, then a Stage 2: Detailed Site Investigation would be required.

However, this case is totally different from a normal development as far as soil assessment is concerned for the following reasons:

- The site is well established for approximately four (4) years,
- The activities are already approved by all relevant Government Departments including Blacktown City Council – Joint Regional Planning Panel, NSW Environment Protection Authority (EPA), Roads and Maritime Services, NSW Health, Sydney Water Corporation,
- The likelihood of ground contamination is minimal given that the double sealed bags will be contained in sulo bins and tipped directly into the hopper/steel bin which in turn is bagged and sealed and driven directly into the autoclave,
- The site has been professionally concreted and sealed inside and outside the building,
- The building is fully bunded to contain any spills,
- All activities remain the same without any changes,
- The site layout including all infrastructures will remain unchanged,
- Any potential spills of waste or disinfectants will be contained within the fully sealed and bunded building, and

The development does not require any soil disturbance at any place of the site

We believe that our site evaluation is very comprehensive and consistent with SEPP 55 and CLM. Hence, a more comprehensive preliminary contamination assessment for the proposed new site is not warranted for the reasons provided above.

6.12 AIR & MICROCLIMATE

A comprehensive Air Quality Impact Assessment (AQIA) was undertaken in accordance with the NSW EPA guidelines:

- *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales*,
- *Technical framework - Assessment and management of odour from stationary sources in NSW* ,
- *Technical notes - Assessment and management of odour from stationary sources in NSW*.

The assessment was undertaken by adopting the methodologies outlined within these guidelines, including the selection of meteorological data, the collection of appropriate odour emission criteria, calculation/estimation of odour emission rates, and the set-up and use of a

NSW EPA-approved dispersion model to accurately simulate the emissions from the subject site.

More details on the AQIA are provided below.

6.12.1 Local Terrain

Two three-dimensional views of the site have been provided as **Figure 6-4** and **Figure 6-5**, showing the location of the site and nearest identified receptors from the subject site. The first figure shows the terrain with the z-axis (i.e. vertical axis) exaggerated by a factor of 10 (i.e. a given distance on the x-axis or y-axis appears ten times as great on the z-axis) in order to provide a clearer description of the topography. The second figure, with all axes equally scaled, shows the terrain as it actually exists when viewed in a conventional three dimensional view. A coloured scale bar shows elevations corresponding to the colours used in the figures. It should be noted that these figures are an approximation of the actual terrain, based on terrain information obtained from satellite imagery.

As shown in these figures, the terrain is considered slightly undulating in nature but is not expected to heavily influence odour impacts from the subject site.

Figure 6-4: Three-Dimensional View of Terrain of the Region with an Exaggerated Z-Axis (Z-Axis Increased by Factor of 10)

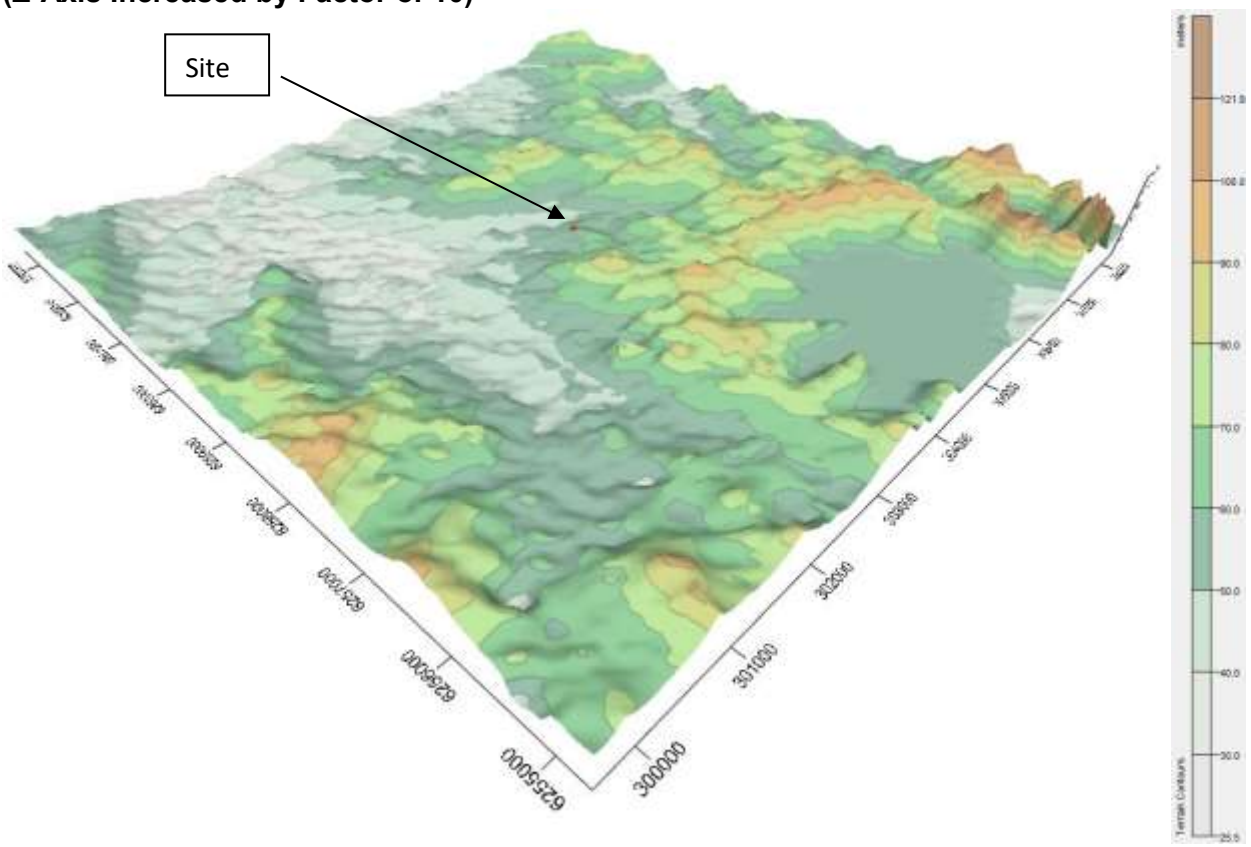
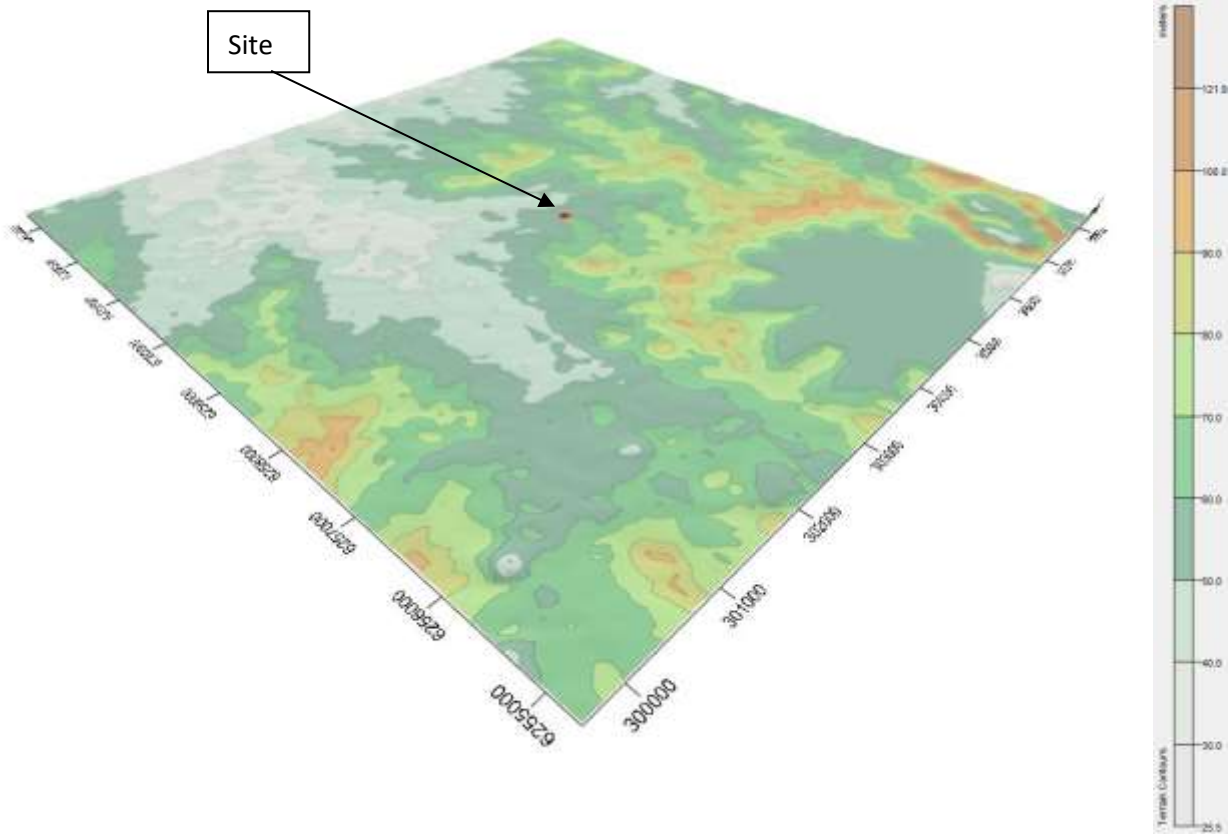


Figure 6-5: Three-Dimensional View of Terrain of the Region with all Axes Equally Scaled



6.12.2 Potentially Sensitive Residential Receptors

As previously stated, the site is surrounded by commercial/industrial premises and a number of nearby residential dwellings outside the industrial area.

The activities will be well shielded from the surrounding environment by the existing built environment such as the topography of the site, the fact that the activities will be conducted inside a building and the high and large neighbouring commercial and industrial buildings.
Based on the EPA's document "*NSW DEC (EPA) Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales – August 2005*", the following definition of sensitive receptor is provided: "***Sensitive Receptor -*** *A location where people are likely to work or reside; this may include a dwelling, school, hospital, office or public recreational area. ……".* However, as the site is located within a IN1 – General Industrial where a variety of activities are permitted, it was considered appropriate to pay a greater attention to the location of the site relative to the residential zoned areas.

In any case, based on our assessment during our inspections of the site and surrounding environment, the proposed activities are unlikely to have any adverse impact on any sensitive residential receptor under any adverse weather and operating conditions. Similarly, the proposed activities are unlikely to have any impact on the neighbouring commercial/industrial properties provided that the recommended mitigations measures are implemented and maintained at all times.

The closest potentially sensitive residential receptors are included in **Table 6-4** and shown in an aerial photo which is provided in **Figure 6-6**. However, the closest neighbouring and potentially affected commercial/industrial receptors are included in **Table 6-5** and shown in an aerial photo which is provided in **Figure 6-7**.

Table 6-4: Closest Potentially Sensitive Residential Receptors

Receptor ID	Address	Lot & DP	Approximate distance to site boundary (m)	Easting	Northing	Elevation (m)
R1	170 Reservoir Road Arndell Park	Lot 201 DP 880404	1,100 E	305263	6258730	64
R2	61 Holbeche Road Blacktown	Lot 1 DP 832346	560 NE	304478	6259305	50
R3	92 Aliberti Drive Blacktown	Lot 63 DP 869788	500 NE	304386	6259319	50
R4	1 Mariko Place Blacktown	Lot 98 DP 869788	400 N	304142	6259408	49
R5	52 De Castella Drive Blacktown	Lot 242 DP 842110	690 N	303872	6259768	48
R6	15 Flemming Grove Doonside	Lot 10 DP 975002	1,140 NW	303188	6259965	44
R7	711 Great Western Highway Eastern Creek	Lot 1 DP 723384	1,980 W	301940	6258973	40
R8	47 Pikes Lane Eastern Creek	Lot 3E DP 436196	2,160 SW	301824	6258596	42
R9	50 Peter Brock Drive Eastern Creek	Lot 4 DP 1079897	1,370 S	303922	6257475	75

Table 6-5: Closest Neighbouring Commercial/Industrial Receptors

Receptor ID	Address	Lot & DP	Approximate distance to site boundary (m)	Easting	Northing	Elevation
R10	14 Kenoma Place Arndell Park	Lot 12 DP 786328	Immediately Surround Site NW	303883	6259092	53
R11	16 Kenoma Place Arndell Park	SP85841	Immediately surround Site W	303889	6259048	54
R12	21 Lidco Street Arndell Park	Lot 221 DP 786329	Immediately surround Site SW	303879	6259005	55
R13	23 Lidco Street Arndell Park	Lot 222 DP 786329	Immediately surround Site S	303918	6259007	54
R14	25 Lidco Street Arndell Park	Lot 223 DP 786329	Immediately surround Site SE	303953	6258994	54
R15	7 Kenoma Place Arndell Park	Lot 15 DP 786328	Immediately surround Site NE	303961	6259049	53

All discrete residential and neighbouring commercial/industrial receptors listed in the above tables were considered in the computer modelling.

Figure 6-6: Closest Potentially Sensitive Residential Receptors

Figure 6-7: Closest Neighbouring Commercial/Industrial Receptors

6.12.3 Local meteorology

The closest monitoring station to the subject site is the Horsley Park Equestrian Centre Automatic Weather Station (AWS) (Station No. 67119) operated by the Bureau of Meteorology (BoM). This monitoring station is located approximately 7.2 km south south west of the subject site. Data at this monitoring station are logged hourly and was used in accordance with the NSW EPA air dispersion modelling guidelines. The year selected for the assessment was 2015, which is the most complete and recent datasets available from the monitoring station that are compliant for use in the modelling in accordance with the NSW EPA guidelines.

Figure 6-8 shows the 2015 all-hours annual wind rose for Horsley Park. The annual wind climate in the area is dominated by flows from the southwest. To a lesser extent, winds from the south and south east are also prevalent. Winds from the northwest, northeast and southeast have the lowest frequency of occurrence.

It is the incidence of daytime winds that are of greatest concern with regards to the transport and dispersion of odour emissions from the site. Due to the nature of operations, the majority of odour generated at the site would be during operational hours when processing activities are

undertaken, except from the water tank. **Figure 6-9** shows the seasonal all hours wind climate. Odour movements can become significant under strong winds (greater than 5 m/s).

6.12.4 Atmospheric Stability

The "stability" of the atmosphere is a classification used to describe the structure of the atmosphere in terms of temperature, specifically, how temperature changes in the atmosphere with altitude. Classification is often done according to the Pasquill-Gifford classification system that consists of six stability class groups, shown in **Table 6-6**. The class "A" describes an atmosphere where the air is well-mixed and there is little hindrance of dispersion into the atmosphere. At the other end of the scale is class "F", which describes conditions under which temperature inversions would occur, where winds are calm or absent and air close to the earth surface, cannot rise into the atmosphere due to the presence of warmer air layers above. The classes in between A and F indicate changing degrees of stability due to variations in temperature in the atmosphere.

Table 6-6: Pasquill-Gifford Stability Class System

Stability Class	Description
A	Extremely Unstable
B	Unstable
C	Slightly Unstable
D	Neutral
E	Slightly Stable
F	Very Stable

Worst case dispersion conditions for emissions would occur during F-class stability conditions – generally associated with still/light winds and clear skies during the night or early morning period (stable conditions).

Analysis of the referenced site-specific meteorological data indicates the F-class dispersion conditions were present for much less than 10% of the time in the Horsley Park (2015) meteorological file, suggesting that there is a mild risk of enhanced impacts due to this weather condition.

Based on the Met files, it can be deduced that stability class frequencies in the meteorological file indicate the dominance of moderate still / stable conditions. Stability class D is the most frequent, with an occurrence of approximately 45%, which is to be expected as it is typically considered dominant during daytime, sunrise and sunset. Stability classes A, B and C, which offer the best dispersion conditions, occur with frequencies of approximately 10%, 8% and 14% respectively. This analysis suggests that less dispersive conditions predominantly occur or are to be expected to occur within the area throughout a typical year. Enhanced air emission impacts would then be expected.

6.12.5 Wind Rose Plots

Wind rose plots show the direction from which the wind is coming with triangles known as "petals". The petals of the plots in the figure summarise wind direction data into 8 compass directions i.e. north, north-east, east, south-east, etc. The length of the triangles, or "petals", indicates the frequency that the wind blows from the direction presented. Longer petals for a given direction indicate a higher frequency of wind from that direction. Each petal is divided into segments, with each segment representing one of the six wind speed classes. Thus, the segments of a petal show what proportion of wind for a given direction falls into each class. The proportion of time for which wind speed is less than speeds in the first class (i.e. 0.5 m/s), when speed is negligible, is referred to as calm hours or "calms". Calms are not shown on a wind rose as they have no direction, but the proportion of time that constitutes the period under consideration is noted under each wind rose. The concentric circles in each wind rose are the axes that denote wind frequencies. In comparing the plots it should be noted that the axes vary between wind roses, although all wind roses are the same size. The frequencies shown in the first quadrant (top-left quarter) of each wind rose are stated beneath the diagram.

6.12.6 Local Wind Trends

Figure 6-8 and **Figure 6-9** present the wind rose plots for the Horsley Park AWS monitoring station (Station No. 67119). **Figure 6-8** contains the information prepared for the whole year 2015 (Annual all hours), while **Figure 6-9** contains the information prepared for the different seasons in year 2015 (Seasonal all hours).

At Horsley Park in 2015, **Figure 6-8** shows that winds from the south-west dominated over the course of the year, with a frequency of approximately 19%. All other directions contributed wind with frequencies of approximately 11% or less. During the summer period, winds frequently blew from the south east and east at around 16% each. Other main wind directions included south (14%) and south west (12%), with winds least likely to blow from the west or north-west. Autumn shows slower winds, with south-westerly winds dominating at 26%, and all other directions contributing less than 13% each. The main wind direction continued to be from the south-west (22%) in winter, westerly winds contributing around 17%, with winds from north and north west at 12% or less. Winds were least likely to occur from the north-east, east or south east during winter. In spring though, winds were fairly equally represented, with the largest occurrence being south-westerlies (16%); all other wind directions contributed with frequencies of around 13% or less.

Figure 6-8: Annual wind rose (all hours) – Horsley Park 2015

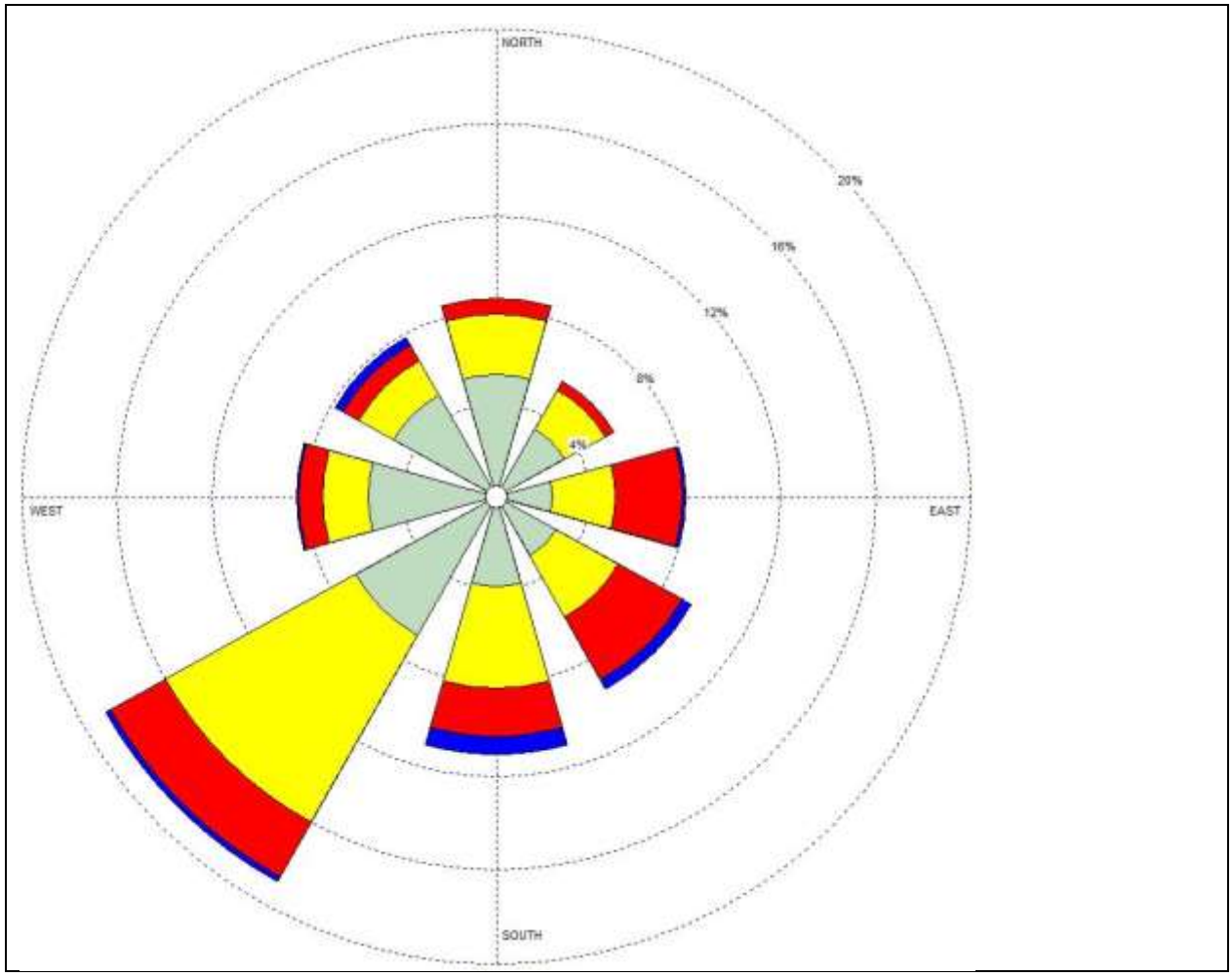
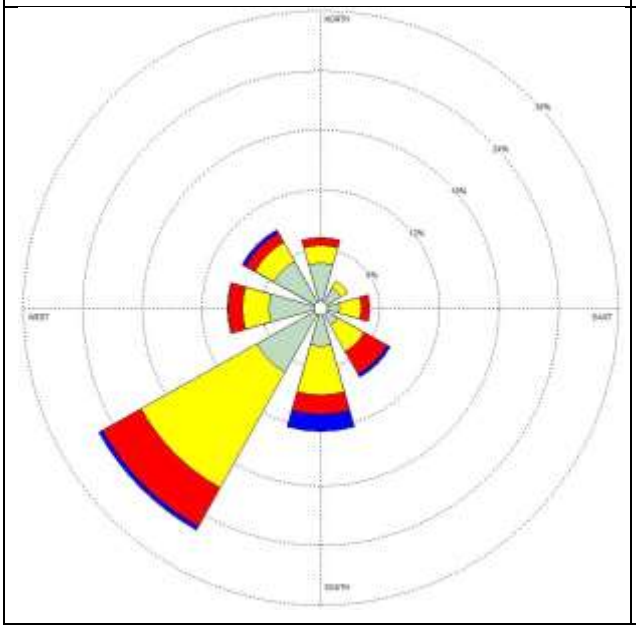
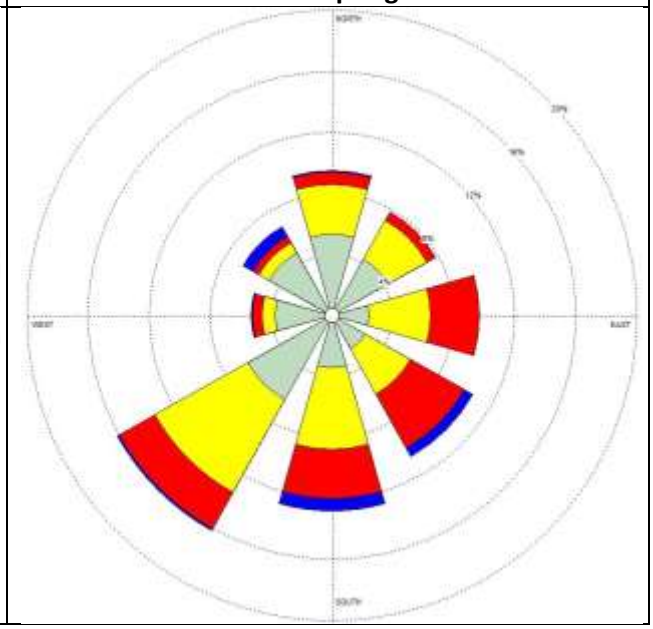


Figure 6-9: Seasonal all hours wind rose charts – Horsley Park 2015

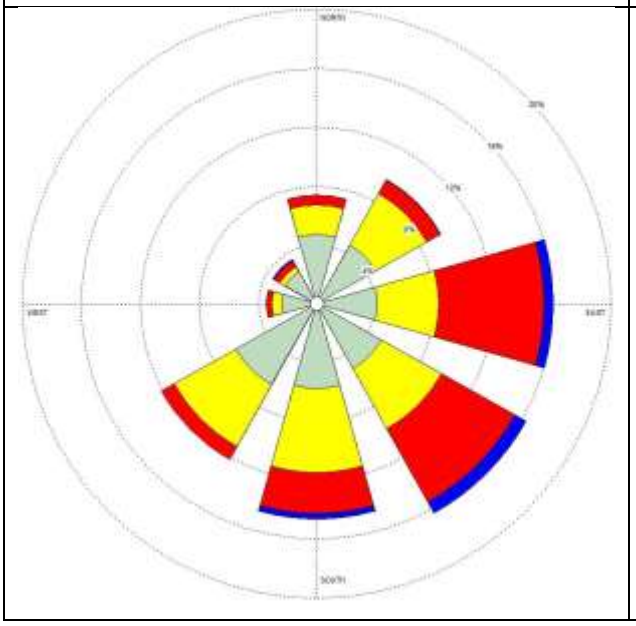
Wind Rose 2015 Autumn – All hours



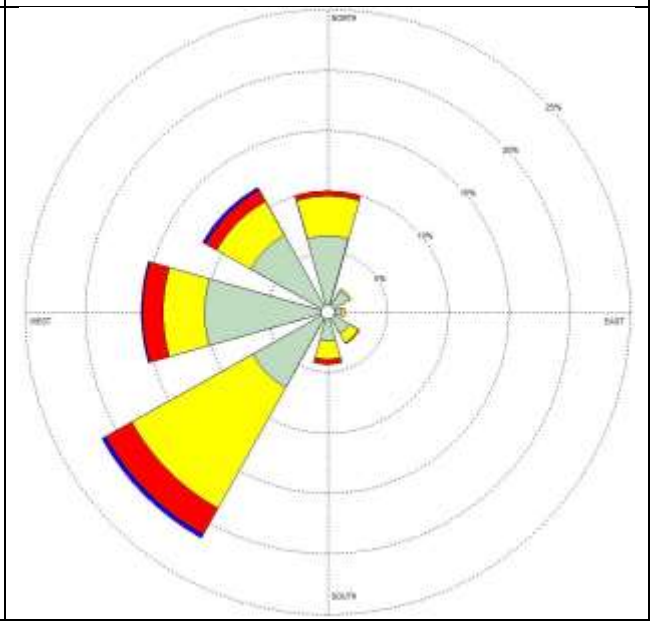
Wind Rose 2015 Spring – All Hours



Wind Rose 2015 Summer – All Hours



Wind Rose 2015 Winter – All Hours



6.12.7 Local Air Quality

Odour emissions attributable to businesses identified to be located within proximity to the subject site were determined to be minimal, given the nature of the businesses. There may be occasional odours observed from the waste management facilities at Eastern Creek. However it is envisaged to be infrequent and thus associated impacts would be minimal. There may be also very rare odours observed from the identified car repair business which is adjacent to the subject site. However the associated impacts would be minimal because the operation area is fully enclosed.

It is expected that odour impacts that would be predominantly observed as background concentrations for the identified receptors would only be those from traffic movements on Kenoma Place, Vangeli Street and Lidco Street. Odours from these transport activities would be very minimal and short-lived.

6.12.8 Air Quality Criteria and Guidelines

Table 6-7 shows how the odour criteria recommended by the NSW EPA varies with population.

Table 6-7: NSW EPA Odour Performance Criteria

Size of Affected Community	Odour Performance Criteria (Odour Units) (to be complied with for 99.0% of the time)
Urban (Population ≥ ≈ 2000)	**2.0 OU**
Population ≈ 500	3.0 OU
Population ≈ 125	4.0 OU
Population ≈ 30	5.0 OU
Population ≈ 10	6.0 OU
For single residential areas (≤ ≈ 2)	7.0 OU

Given the nature of the regional location of the site and the industrial area with surrounding well-established residential areas, it is appropriate to utilise an odour assessment criteria of 2.0 OU for all residential receptors.

The subject site is located within Arndell Park industrial area. We believe that the odour assessment criterion of 6.0 OU is the appropriate criterion for the commercial/industrial premises. Considering that these are not dwellings and given that the residential dwellings would be considered to be more sensitive when it comes to odour observations, the use of two levels of odour is appropriate.

The NSW EPA guidelines also set 7 odour units as an assessment criterion for the maximum odour level an individual should be exposed to.

The detection of odour is not an indication that criteria is being exceeded, rather the strength of the odour would be the basis of the exceedances.

6.12.9 Adour Impact Modelling

The NSW EPA-approved air dispersion model, AERMOD, was used for the quantification of air impacts from the proposed development. The methods used to quantify the impacts through AERMOD have been conducted in accordance with the NSW EPA modelling guidelines.

AERMOD is a steady-state plume model accurately (if not conservatively) predicts ground level concentration impacts where local topography does not significantly and adversely affect plume migration. The model was used to estimate the concentration impacts on receptors for each hour of input meteorology. Within the AERMOD dispersion model, technical options are available to simulate plume behaviour affected by the presence of buildings. Atmospheric dispersion curves and surface roughness heights were selected which specifically represented the site conditions present.

Site-specific meteorological data was used (described above) in accordance with the NSW EPA modelling guidelines. Contribution due to the effects associated with the presence of buildings on and within proximity to the subject site was also accounted for in the AERMOD model. Emission rates were calculated for all potential odour sources based on the real time sampling results and were used conservatively using reasonable and/or practical assumptions.

6.12.10 Odour Sampling and Results

As previously stated due to the lack of reliable data associated with odour emissions from similar activities, it was considered necessary to obtain real time odour emission values to be used in the computer modelling. This would be the best and most accurate representation of the odour emissions of the activities undertaken on site.

As part of the air sampling regime it was considered necessary to take samples representative of the different stages of the process to ensure that all possible odour emission scenarios are included in the assessment (odour dispersion modelling).

Despite the fact that the waste materials are contained within double bags while being transported from the collection bins to the processing bins, we considered that there could be a chance of the waste materials to be exposed. For that reason we decided to take a sample of a potentially broken bag. Similarly, we considered worst case scenarios in all our sampling locations and conditions. We believe that these conditions or scenarios will never occur.

All samples were collected in accordance with AS4323.3 and all sampling bags were placed in new black odourless heavy duty garbage bags. These bags were delivered to the testing laboratory as soon as (within one hour) sampling was completed to ensure that the sampling weather conditions were very similar to the weather conditions when the samples were delivered to the laboratory. The meteorological conditions obtained during the sampling from a portable weather station are included in **Table 6-8** as well as the wind speed and direction

which were obtained from the Horsley Park automatic Weather Station which is the closest to the site.

Table 6-8: Meteorological Conditions on 1 December 2016

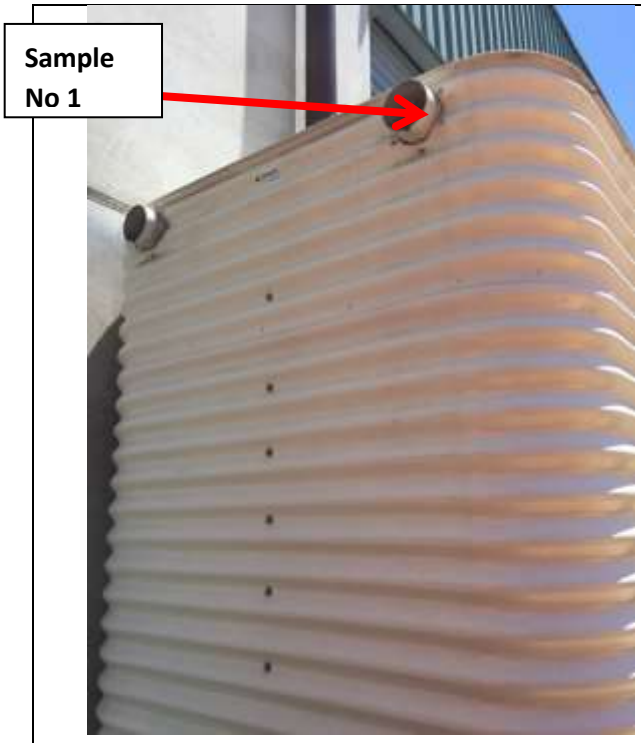
General	Sunny – fine – clear sky
Temperature (°C)	36.3
Relative Humidity (%)	23
Barometric Pressure (mbar)	1012
Wind Speed (Km/h)	22
Wind Direction	S

Odours have been identified to be released from the following locations which are included also in **Figure 6-10.**

- Water tank unit where steam released from the outer skirt of the autoclave is directed into this water tank to remove odours. This water tank unit is fully enclosed with 2 small opening. Each opening was considered as a single point source (point odour emissions),
- Incoming waste processing bins (fugitive odour emissions),
- Processed waste bin (fugitive odour emissions), and
- Stack serving the steam released through the emergency pressure relief valve (point odour emissions).

Air sampling locations and results of the olfactometry testing are included in **Table 6-9.**

Figure 6-10: Photos of Air Sampling Locations



Water tank and openings where we took air sample No 1

Processed materials bin where we took air sample No 2

Open bag where we took air sample No 3

Waste procesing bin where we took sample No 4 and the duplicate sample

Table 6-9: Air sampling locations and results of olfactometry testing

Location	Sampling Date & Time	Analysis Date & Time	Panel	Sample Odour Concentration (OU)	Sample Odour Concentration (OU)	Odour Character & Hedonic Tone
Water Tank Air Space	01/12/2016 @ 12:06	02/12/2016 @ 10:30	4	8,200	8,200	Sour milk, raw meat, toilet cleaner, chlorine, bleach, paint, chocolate powder, menthol, minty, chocolate mint (+1.0)
Final Processed Waste Bin	01/12/2016 @ 12:27	02/12/2016 @ 11:00	4	1,500	1,500	Garbage, meat, chocolate, burnt plastic, minty (-3.5)
Open Bag of Raw Waste	01/12/2016 @ 12:35	02/12/2016 @ 11:30	4	900	900	Garbage, urinal deodorant blocks, hospital cleaning products, medicinal meat, fishy, burnt plastic, vinyl, menthol, swampy, earthy, rotten (-3.5)
Raw Waste Processing Bin	01/12/2016 @ 12:40	02/12/2016 @ 12:00	4	420	420	Hospital cleaning product, urinal deodorant block, soap, disinfectant, meat, butcher shop (-3.0)
Raw Waste Processing Bin - Duplicate	01/12/2016 @ 12:47	02/12/2016 @ 12:30	4	540	540	Vegetable, fruit, hospital cleaning product, urinal deodorant block, soap, disinfectant, meat, minty, musty, swampy (-2.0)

6.12.10.1 Odour Source Inventory

Details of the source inputs, which were used as the basis for the different scenarios considered to be possible, are given in **Table 6-10**.

Table 6-10: Source Input Details

Source	Water Tank Vent 1 No Reduction	Water Tank Vent 1 50% Reduction	Water Tank Vent 1 90% Reduction
Eastings	303936	303936	303936
Northings	6259024	6259024	6259024
Type	Point	Point	Point
Release Height	2.45 m	2.45 m	2.45 m
Stack Diameter	0.1 m	0.1 m	0.1 m
Discharge Temperature	40^0C	40^0C	40^0C
Exit Velocity	0.1 m/s	0.1 m/s	0.1 m/s
Emission Rate	14.81 OU/s	7.41 OU/s	1.48 OU/s

Source	Water Tank Vent 2 No Reduction	Water Tank Vent 2 50% Reduction	Water Tank Vent 2 90% Reduction
Eastings	303937	303937	303937
Northings	6259024	6259024	6259024
Type	Point	Point	Point
Release Height	2.45 m	2.45 m	2.45 m
Stack Diameter	0.1 m	0.1 m	0.1 m
Discharge Temperature	40^0C	40^0C	40^0C
Exit Velocity	0.1 m/s	0.1 m/s	0.1 m/s
Emission Rate	14.81 OU/s	7.41 OU/s	1.48 OU/s

Source	Processed Waste 2 Air Changes/Hour	Processed Waste 1 Air Change/Hour
Eastings	303931	303931
Northings	6259039	6259039
Type	Volume	Volume
Release Height	2.5 m	2.5 m
Length of Side	22.3 m	22.3 m
Initial Lateral Dimension	5.19 m	5.19 m
Initial Vertical Dimension	1.25 m	1.25 m
Emission Rate	6696.26 OU/s	3348.13OU/s

Source	Broken Bag 2 Air Changes/Hour	Broken Bag 1 Air Change/Hour
Eastings	303931	303931
Nothings	6259039	6259039
Type	Volume	Volume
Release Height	2.5 m	2.5 m

Length of Side	22.3 m	22.3 m
Initial Lateral Dimension	5.19 m	5.19 m
Initial Vertical Dimension	1.25 m	1.25 m
Emission Rate	4017.76 OU/s	2008.88 OU/s

Source	Emergency Release Valve
Eastings	303919
Northings	6259036
Type	Point
Release Height	7.5 m
Stack Diameter	0.05
Discharge Temperature	143^0C
Exit Velocity	93.7 m/s
Emission Rate	289.44 OU/s

6.12.11 Scenarios and Modelling Results

Seven (7) scenarios were considered and modelled to ensure that all possible operating conditions are included in the computer modelling predictions. **Table 6-11** includes the scenarios and results of the modelling for all scenarios.

Despite the fact that no mechanical ventilation is installed on site, the high building roof and the small number of employees, only one (1) air change per hour is more than sufficient. Based on our observations during the site inspections, we believe that less than 1 air change per hour is satisfactory. However, to get a better sensitivity analysis, we have assumed that there are two (2) air changes per hour for all scenarios except scenario 7. Scenario 7 is a more realistic worst case scenario.

Again, we have included scenarios 5 with 2 air changes and 50 % reduction of odour emissions at the water tank as a result of introducing an odour mitigation measure with 50% efficiency. Scenario 6 included 2 air changes per hour and an odour mitigation measure with 90% efficiency. This reduction is based on the manufacturers' specifications and many years of testing by the manufacturer.

The following tables summarise the results of the modelling for odour. Each table includes the result of each scenario modelled. Relevant isopleths modelling contours have been provided in the AQIA.

Table 6-11: Scenarios and results

Scenario 1 considered normal operations without any incidents or near misses.

Scenario 1: Typical Operations (water tank and processed waste)

Receptor	Impact (OU)	AMMAAP Criteria (OU)
R1	0.021	2
R2	0.053	
R3	0.070	
R4	0.091	
R5	0.028	
R6	0.014	
R7	0.004	
R8	0.004	
R9	0.014	
R10	1.216	6
R11	5.158	
R12	1.693	
R13	3.102	
R14	2.483	
R15	6.610	

Scenario 2 considered normal operations with the addition of a possible bag fallen off during its transport from the collection bin to the storage bin. The bag was assumed to be open with higher odour emissions. We understand that this scenario has never occurred in the last three (3) years of operations and is unlikely to occur. We also considered necessary to model this scenario for another reason which is again unlikely to occur but we wanted to cover all possible scenarios. The other reason is that at hospitals, medical centres, etc.… there a very small chance that a bag is not fully sealed or tied properly. This is likely to generate additional odours.

Scenario 2: Typical operations + Broken Bag

Receptor	Impact (OU)	AMMAAP Criteria (OU)
R1	0.035	2
R2	0.084	
R3	0.112	
R4	0.0145	
R5	0.045	
R6	0.023	
R7	0.007	
R8	0.006	
R9	0.022	
R10	1.943	6
R11	8.252	
R12	2.707	
R13	4.940	
R14	3.955	
R15	10.575	

Scenario 3 considered normal operations at the facility and the emergency relief pressure valve opened due to increase in pressure above 50 PSI inside the autoclave. The steam was released into the atmosphere for 5 minutes until the system was shut down and the pressure was restored to normal.

Scenario 3: Typical operations + Emergency Pressure Valve Release

Receptor	Impact (OU)	AMMAAP Criteria (OU)
R1	0.023	2
R2	0.055	
R3	0.073	
R4	0.095	
R5	0.029	
R6	0.015	
R7	0.004	
R8	0.004	
R9	0.014	
R10	1.238	6
R11	5.216	
R12	1.778	
R13	3.217	
R14	2.572	
R15	6.600	

Scenario 4 considered worst case whereby the facility was operating normally but a bag was found open and the emergency relief pressure valve opened and released the steam for 5 minutes.

Scenario 4: Worst Case (All Potential Sources)

Receptor	Impact (OU)	AMMAAP Criteria (OU)
R1	0.0355	2
R2	0.086	
R3	0.115	
R4	0.149	
R5	0.046	
R6	0.023	
R7	0.007	
R8	0.006	
R9	0.023	
R10	1.952	6
R11	8.300	
R12	2.766	
R13	5.065	
R14	4.043	
R15	10.622	

Scenario 5 considered worst case whereby the facility was operating normally but a bag was found open and the emergency relief pressure valve opened and released the steam for 5

minutes. In addition, an odour mitigation measure was installed at the water tank to reduce odour emissions for that source by 50%.

Scenario 5: Worst Case (All Potential Sources) with 50% reduction of emissions from water tank

Receptor	Impact (OU)	AMMAAP Criteria (OU)
R1	0.035	2
R2	0.086	
R3	0.115	
R4	0.148	
R5	0.046	
R6	0.023	
R7	0.007	
R8	0.006	
R9	0.023	
R10	1.951	6
R11	8.300	
R12	2.759	
R13	5.049	
R14	4.026	
R15	10.614	

Scenario 6 considered worst case whereby the facility was operating normally but a bag was found open and the emergency relief pressure valve opened and released the steam for 5 minutes. In addition, an odour mitigation measure was installed at the water tank to reduce odour emissions for that source by 90%.

Scenario 6: Worst Case (All Potential Sources) with 90% reduction of emissions from water tank

Receptor	Impact (OU)	AMMAAP Criteria (OU)
R1	0.035	2
R2	0.086	
R3	0.115	
R4	0.148	
R5	0.046	
R6	0.023	
R7	0.007	
R8	0.006	
R9	0.023	
R10	1.944	6
R11	8.300	
R12	2.759	
R13	5.041	
R14	4.019	
R15	10.591	

Scenario 7 considered worst case whereby the facility was operating normally but a bag was found open and the emergency relief pressure valve opened and released the steam for 5

minutes. In addition, no odour mitigation measure was installed at the water tank to reduce odour emissions. For this scenario, we considered the most realistic worst case scenario which includes one (1) air change per hour from the building as stated above.

Scenario 7: Worst Case (All Potential Sources) assuming 1 air change

Receptor	Impact (OU)	AMMAAP Criteria (OU)
R1	0.018	2
R2	0.044	
R3	0.059	
R4	0.077	
R5	0.024	
R6	0.012	
R7	0.004	
R8	0.003	
R9	0.012	
R10	1.000	6
R11	4.219	
R12	1.454	
R13	2.600	
R14	2.094	
R15	5.371	

Due to the fact that the AERMOD output file for scenarios 1, 2, 3 and 4 is over 200 pages, we considered that it is more appropriate to provide only extracts from the file in **Attachment 2 of the AQIA**. Similarly for the AERMOD output file for scenarios 5, 6 and 7. A copy of the full output files could be provided upon request.

6.12.11 Summary and Conclusions

Due to the fact that reliable odour emission data from similar activities could not be found in the literature, it was determined that the most appropriate methodology was to collect samples from different stages of the process where odour emissions are likely to be emitted to the atmosphere. These samples were delivered to a NATA accredited laboratory for olfactometry testing (Odour Research Laboratories Australia). This is the most accurate and representative method of obtaining real time odour emission values for the activities.

The local meteorology and air quality were taken into consideration during the assessment to ensure that the computer modelling and results were site specific rather than generic. The meteorological files were developed specifically for the site in accordance with current NSW guidelines.

All potentially sensitive receptors were identified based on the EPA's document "*NSW DEC (EPA) Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales – 2017*", where sensitive receptor was defined as: "***Sensitive Receptor -*** *A location where people are likely to work or reside; this may include a dwelling, school, hospital, office or public recreational area.*

……*".* However, as the site is located within a IN1 – General Industrial zone where a variety of activities are permitted, it was considered appropriate to pay a greater attention to the location of the site relative to the residential zoned areas. In addition, the closest neighbouring and potentially affected commercial/industrial receptors were included in the computer modelling as discrete receptors.

Odour modelling was undertaken using AERMOD, which is a NSW EPA-approved air dispersion modelling program. Output from the modelling provides prediction of ground level odour concentrations at the nearest potentially affected receptors from the subject site.

The air quality criteria were adopted from current EPA guidelines and environmental legislation. The results of all scenarios were compared with current EPA criteria including the scenarios used for sensitivity analysis despite the fact that some of these scenarios may not be so credible but were still considered. All initial scenarios were very conservative and have never occurred since the beginning of the plant operation. However, they provide good research values for the Government especially the EPA and the Department for development of similar assessments.

All scenarios including worst case scenario demonstrated clear compliance with the 2 ODU criteria at all potentially sensitive residential receptors without the need to implement any additional mitigation measures other than those already installed on site. Despite the fact that compliance with the 6 ODU criteria at nearby commercial/industrial premises was achieved and to provide the authorities with greater confidence that under any adverse operating, weather and/or environmental conditions the activities will comply with even lower limits, we have recommended the implementation of additional non-mandatory mitigation measures at the most potentially odour generating sources.

In conclusion, there are no unacceptable impacts expected in relation to air quality arising because of this proposal. Optional mitigation measures have been recommended and these are outlined in **Section 7.**

6.13 FLORA AND FAUNA

The site is located within a highly industrialised and commercialised area where most sites are fully developed with only the odd tree here and there. Therefore, there are no matters relating to Native flora or fauna that are relevant to this application. No further consideration of this issue is required.

6.14 WASTE

The waste management aspect for the proposed development is of utmost importance to the proponent since the waste materials received on site are considered raw materials. A consideration has been given to the waste management during both construction and operation stages.

All waste received on site is considered to be sterile and the treatment is complete with no residual waste left in the chamber. It is for this reason and the use of steam for the treatment of waste that the machine is a self-cleaning device.

A condition was imposed by Council requesting a health and safety management plan to be submitted to Council prior to the issue of an Occupation Certificate which details mitigation procedures in the event of any spillage or a bag being punctured. This plan was submitted to and approved by Council as requested.

6.14.1 Waste Management Plan for the Construction Stage

Since no demolition or construction works will be necessary as part of this development but rather some minor maintenance and service to existing structures (mostly plant and equipment) to improve the working environment from a health and safety perspective as well as improving their efficiency. A comprehensive waste management plan for construction will not be required.

However, just in case during the service works that some small quantities of waste materials may be generated, this waste would be limited to some small pieces of metal, screws, bolts, left-overs including packaging products such as plastics and cardboard, etc.…. This waste will be managed and removed off site by the contracting service Company as per normal practice and as part of the contractual arrangements.

6.14.2 Waste Management Plan for the Operational Stage

Since the site is mainly used for the receiving and processing of clinical waste materials, it is clearly evident that waste management is one of the applicants' top priorities to ensure that materials received are not mixed with waste generated from their and their employees' everyday activities during normal duties. The waste generated on site is separated into domestic putrescible, domestic non-putrescible and possibly commercial non-putrescible solid waste.

The putrescible waste is mainly made up of very small quantities of food scraps, tissues, etc.… This waste is placed in a separate bin and collected by the weekly Council (or contractor) garbage collection run.

The domestic non-putrescible waste is mainly made up of office left-overs, papers, cardboard boxes, empty tissue boxes, empty aluminium cans, plastic bottles, glass jars, etc. These will be placed in the recyclable bins to be collected by weekly (or fortnightly) Council (or contractor) recyclable collection runs.

The commercial waste is generated from the packaging of products stored and used on site and other by-products from the use of certain products such as potentially oil contaminated cardboard boxes, dirty rags, plastics, empty containers, etc..... This waste is placed in a dedicated mini skip that is collected and replaced by a licensed waste transporter on a monthly basis.

Since all major machinery servicing and maintenance are undertaken by professional mechanical companies, it is not anticipated that any machinery related waste will be generated on site.

Other than the above wastes, the other waste materials that will be generated on site that may require transporting directly to licensed landfills are the treated clinical waste that has been transformed into General Solid Waste which is placed in a large waste bin. The General Solid Waste contained in the final processed materials bin is currently replaced with an empty one 5 times per fortnight. However, it is proposed that this frequency be changed to once per day to ensure that all processed clinical waste is removed off site promptly.

The maximum quantity of processed waste (General Solid Waste) stored on site at any one time is currently 12 tonnes. The maximum quantity of processed waste (General Solid Waste) stored on site at any one time will remain 12 tonnes. This means that the maximum quantity of processed waste stored at any one time will remain as is at approximately 12 tonnes. The only difference is the frequency of transporting this waste off site to a lawfully licensed facility that can accept such waste .

Due to the fact that the site is connected to Sydney Water Corporation's sewer, the amenities of the site are and will continue to be serviced by the existing sewer due to the nature and location of the site.

6.15 VISUAL/AESTHETICS

As the building has been approved by Blacktown City Council and no changes to any part of the building are required, it must have considered as compliant with the Building Code of Australia, Australian Standards, Blacktown DCP especially in relation to streetscape requirements, finishes and colours to blend with the surrounding industrial/commercial environment.

Furthermore, since all loading, unloading and processing activities are undertaken within the fully enclosed building and within an already well established commercial/industrial area, visual impact is considered to be insignificant especially as the building has already been approved by Blacktown City Council as is.

None of the activities will be visible from any residential premises or public place unless the person comes very closely and looks over the existing fence.

6.16 ENERGY

As stated elsewhere in this document, energy conservation is supported and encouraged by the management of the site by using natural ventilation and lighting where possible. Also most appliances and lighting are power savers to reduce the energy consumption of the site. Therefore there are no significant matters relating to energy that are relevant to this application. No further consideration of this issue is required.

6.17 NOISE

The site is located within an existing Industrial Area. The proposal would not introduce new noise sources to the local area nor it is expected to reduce the acoustical amenity of the nearby area. It is expected the noise level contribution from the proposal would be considered insignificant when compared to the existing level of traffic and transport noise from the surrounding roads and overall operations at the Arndell Park industrial site.

A qualitative noise survey was undertaken on 1 December 2016 to determine whether offensive noise, as defined in the Protection of the Environment Operations Act 1997 (POEO Act), was emanating from the activities being conducted on the site. The survey included several locations in Kenoma Place-Arndell Park, Lidco Street-Arndell Park, Holbeche Road-Blacktown, Vangeli Street-Arndell Park, Reservoir Road-Blacktown, Aliberti Drive-Blacktown and Mariko Place-Blacktown in the vicinity of the site and inside the boundaries of the site. There was no audible noise, associated with the activities conducted on the site, which could be identified outside the boundaries of the site. When entering the site, general low level (just audible) noises associated with the vans driving in and out of the driveway and from the existing equipment could be just discerned. This noise could be identified (audible) only inside the boundaries of the site, just audible at but not outside the boundaries of the site.

Based on similar industrial activities, we are confident that the activities comply with the current EPA's noise guidelines which are based on the EPA's Industrial Noise Policy. Current criteria are 70 dB(A) for industrial receivers within an industrial zoned areas. We also believe that the noise criterion of Background + 5 dB(A) specified on occasions by both the EPA and Council is easily complied with.

Furthermore, the activities and equipment used will not change and no additional equipment will be installed as to potentially increase the existing noise levels.

Based on the above, it was considered unwarranted to undertake any further noise assessment .

To help reduce any potential noise impacts, all significant noise generating activities are conducted within the confines of the industrial building as well as within the approved operating hours.

The trucks will only deliver waste material to the site or remove materials from the site during designated approved hours.

It will be conditioned as part of any approval that the operation of the machinery is only to occur during the designated approved hours of 7am to 7pm Monday to Saturday. A further condition will require that the operation of the equipment does not exceed 5dBA above background noise levels at the property boundary.

6.18 HAZARDS AND RISK

As previously stated, the treatment of clinical and similar wastes by autoclaving is the most proven environmentally responsible and safe method of treatment worldwide. In particular, autoclaving is widely used in the health industry.

We believe that a Preliminary Hazard Analysis (PHA) should not have been undertaken for the following reasons:

1 The current approved processing arrangements will continue to be undertaken in the same manner. All clinical and related wastes will be processed on the same day they are received. Therefore there is no storage of clinical wastes on site as defined by the word **"Storage"**,
2 The existing approved CNG has already been certified, notified and registered with SafeWork NSW. Therefore no new notification, certification or registration is required. Copies of relevant certification and registration documents are included in **Appendix R**,
3 No other Dangerous Goods, Hazardous Substances stored on site are above the Departments specified thresholds.

Notwithstanding the above and following the initial SEARs received from the Department, it was determined that the preparation of a comprehensive PHA will provide more confidence to all relevant stakeholders including community, industry, staff, contractors, and Government and non-Government Organisations at all levels.

The PHA states that due to the fact that on occasion there is a chance that more than 500 kg of clinical wastes, a PHA) is required to fulfil the requirements of State Environmental Planning Policy (SEPP) 33 in accordance with the Multi-level Risk Assessment Guidelines adopted by the Department. This may not necessary be correct as stated above. However, we have determined to accept this possible scenario and commissioned the relevant consultant to complete the PHA. **Table 6-12** includes a list of all materials classified as being Dangerous Goods that are stored or handled on the site as depicted in Table 3-1 of the PHA despite the fact that we know that no clinical waste is stored on site.

Table 6-12: Dangerous Goods currently stored on site

Table 3-1: Dangerous Goods Currently Stored on Site

Dangerous Goods Class	UN Numbers	Capacity	Storage Type
Class 6 Division 6.2	3291 PGIII	2000 kg	Roofed store
Compressed Natural Gas	1971	6,000 litres	Outside at SE end of site

The quantities of chemicals to be stored on site due to the increase in waste processing will remain the same with current quantities.

The main purpose of the PHA is to assess whether the proposed development is offensive or hazardous, thereby posing an unacceptable risk to the surrounding environment including people.

The PHA provided information on other methods of clinical waste treatment currently used in Australia to demonstrate further that autoclaving is surely the most safe and environmentally responsible method of treatment worldwide for such wastes. These treatment methods were incineration and chemical.

Other than the clinical waste (Class 6 Division 6.2 Dangerous Goods), 6,000 litres of Compressed Natural Gas is stored in a cylindrical tank at the NE end of the site. Some minor household cleaning products are also stored and used on site.

The following additional information is provided on the equipment. Copies of these documents are included in **Appendices P and R**:

- Certificate of Plant for the pressurised gas tank; [7.5 KL-SU-617 – Cert of Reg Exp 22.03.2019.pdf]
- Pressure vessel certificate survey report for this same vessel; [7.5KL-SU-617 EXT INSP Mar 7.pdf] [Boiler testing My 2018.pdf]
- Evidence of the regular servicing of the boiler provided by EMS conducted in May 2018;
- A detailed microbiological validation of Bondtech Sterilisation Unit BTT6X13 which is the Austoclave vessel at the proposed development site; [biological validation of autoclave.pdf]
- Certificate of inspection – pressure equipment; [pressure vessel inspections.PDF]

These documents support the viewpoint that the autoclave process is being conducted in accordance with the requirements of SafeWork NSW and at an adequate standard of control of destruction of biological matter.

As part of the assessment, all potentially sensitive residential receptors as well as commercial/industrial premises were identified. These receptors and premises were considered as discrete receptors in the computer modelling to determine the potential level of exposure in the worst case scenarios.

Below is a summary of the PHA for consideration.

6.18.1 Hazard Identification

Section 4 of the PHA report identified and examined a number of potential events/consequence scenarios that could occur at the site. The prevention and protection measures designed for the operation of each of the activities associated with each event were listed and discussed in a series of Hazard Identification Charts.

6.18.1.1 Methodology

The procedures adopted by this study for assessing hazardous impacts involve the following steps:

Step 1: Hazard identification;
Step 2: Hazard analysis (consequence and probability estimations); and
Step 3: Risk evaluation and assessment against specific criteria.

Several sections of the PHA report discussed the hazard identification and analysis process as prescribed by the Department of Planning in its document entitled *Hazardous Industry Planning Advisory Paper No 6 – Guidelines for Hazard Analysis* (DUAP 1992).

6.18.1.2 Hazard Identification

This is the first step in the risk assessment. It involves the identification of all theoretically possible hazardous events as the basis for further quantification and analysis. This does not in any way imply that the hazard identified or its theoretically possible impact will occur in practice. Essentially, it identifies the particular characteristics and nature of hazards to be further evaluated in order to quantify potential risks.

6.18.1.3 Hazard Analysis

After a review of the events identified in the hazard identification stage and the prevention/protection measures incorporated into the design of the site, any events which are considered to have the potential to result in impacts off-site or which have the potential to escalate to larger incidents are carried to the next stage of analysis.

As part of the hazard analysis, a consequence estimation is undertaken. This aspect involves the analysis and modelling of the credible events carried forward from the hazard identification process in order to quantify their impacts outside the boundaries of the site. In this case these events typically include explosion, fire fume, dispersion/propagation and stormwater contamination and their potential effects on people and/or damage to property.

Where necessary, the likelihood of incidents quantified as a result of Section 4.3.1 of the PHA report are determined by adopting probability and likelihood factors derived from published data.

The risk analysis includes the consequences of each hazardous event and the frequencies of each initiating failure. The results of consequence calculations (radiation and overpressure contours, and toxic exposure levels) together with the probabilities and likelihood's estimated are then compared against the accepted criteria, as specified by Department of Planning and Environment, NSW applicable for the site. Whether it is considered necessary to conduct the predictions would depend on the probabilities and likelihood estimated and if the risk criteria are exceeded.

6.18.2 Assessment Criteria

The risk criteria applied by Department of Planning and Environment NSW is published in their document *Hazardous Industry Planning Advisory Paper No 4 – Risk Criteria for Land Use Safety Planning* (2011). Relevant extract from the HIPAP No 4 are included below.

> *"People in hospitals, children at school or old-aged people are more vulnerable to hazards and less able to take evasive action, if need be, relative to the average residential population. A lower risk than the one in a million criteria (applicable for residential areas) may be more appropriate for such cases. On the other hand, land uses such as commercial and open space do not involve continuous occupancy by the same people.*
>
> *The individual's occupancy of these areas is on an intermittent basis and the people present are generally mobile. As such, a higher level of risk (relative to the permanent housing occupancy exposure) may be tolerated. A higher level of risk still is generally considered acceptable in industrial areas."*

The risk assessment criteria for individual fatality risk are presented below.

Table 6-13: Individual Fatality Risk Criteria

Land Use	Risk Criteria x 10^{-6}
Hospitals, schools, etc	0.5
Residential	1
Commercial	5
Sporting and active open space	10
Industrial	50

Injury risk levels were also specified in accordance with the HIPAP No 4. The risk of property damage and accident propagation was also discussed and the criteria were identified. In addition, the criteria for risk assessment to the biophysical environment were identified in accordance with HIPAP No 4.

Based on the above, the assessment criteria applicable to the proposed development were specified and adopted throughout the PHA. These criteria were specified for Heat-flux radiation, Explosion overpressure, Toxic exposure, Biophysical environment risk and individual fatality risk.

6.18.3 Hazard Identification Charts

The PHA included hazard identification charts for several operating scenarios which are possible for the proposed development. These scenarios are listed below.

1. Truck loading/dispatch dock
2. Truck staging area
3. Bin lifter area
4. Waste holding area
5. Autoclave
6. Natural gas boiler
7. Treated waste compactor and shredder
8. Bin washing area
9. External areas
10. Transport of Medical Waste

These charts are included in Table 4-2 of the PHA.

6.18.4 Hazards Identified for Further Analysis

Following the review of the charts, several potential hazards were identified as requiring further analysis. These hazards are listed below.

- Failure of the Autoclave chamber
- Small vessel failure
- Vessel failure
- Spill during transport operation

6.18.5 Consequence Estimation

A preliminary consequence analysis of the proposed medical waste facility has been conducted in accordance with the prescribed Multi-Level Assessment guidelines document provided by the Department.

The methodology specified in the Multi-level Assessment guidelines was followed in the PHA. The technique adopted for the development is based on IAEA method and it involves three stages.

- Estimation of the consequences of a major accident;

- Estimation of the probability of a major accident happening; and
- Estimation of societal risk.

As the IAEA method does not present data for the treatment of clinical and related waste, the proposed operations of the site, the IAEA assessment method cannot be used for assessment of the proposed operations. Therefore a qualitative assessment of the consequences of the hazards identified in Section 5 of the PHA will be conducted.

The vessel failure incident scenario, release of pathogens and pressure explosion were comprehensively assessed. For the release of pathogens, computer modelling was undertaken to predict both the pathogen ground level concentrations and hourly exposure levels.

For the discrete residential and commercial/industrial receptors the values included in **Table 6-15** are presented.

Table 6-14: Predicted Pathogen Ground Level Concentrations and Hourly Exposure Levels

Receptor	Predicted Ground Level Concentration (spores/m3)*	Hourly Pathogen Exposure (spores)*
R1	67	120
R2	125	225
R3	113	203
R4	122	219
R5	55	98
R6	50	91
R7	23	41
R8	32	58
R9	50	91
R10	2156	3880
R11	5543	9978
R12	2446	4402
R13	3548	6387
R14	2884	5191
R15	5888	10599

*Results rounded to nearest whole spore

6.18.6 Review of Fire Safety Requirements

A comprehensive review of the fire safety issues associated with the proposed development was undertaken in accordance with the relevant Australian/New Zealand standards and the Building Code of Australia. The review included the following matters:

Spillage controls
Security and signage
Provision for escape
Fire detection

Fire protection equipment
Emergency response plan
Containment of contaminated fire water

6.18.7 Environmental Safeguard Procedures

The current operations of the site include extensive environmental safeguard procedures. Additional procedures and updating of current procedures will need to be conducted to include the proposed Autoclave operations as part of an extensive Environmental, Health and Safety Management System. All employees will be trained in the environmental safeguard procedures.

6.18.8 Summary of Recommendations

From the Hazard Identification Charts a list of potentially hazardous events was prepared which were then examined in greater details to determine which events would be credible and may have significant impacts outside the Site boundary.

Potential release of pathogens into the air outside the building was modelled using AERMOD.

Ground level concentrations have been produced on contour diagrams from the site across to residential and commercial/industrial areas. Consequently, the risk criteria for land use safety planning specified in the Department of Planning, NSW documents Hazardous Industry Planning Advisory Paper (HIPAP) No.4 and Multi-Level Risk Assessment guidelines would not be exceeded.

The following recommendations have been summarised here for easy reference:

1. The transport and handling of clinical and related waste be in accordance with the following guidelines:
    a. AS/NZS 3816:1998 Management of clinical and related wastes (Standards Australia);
    b. Australian Dangerous Goods Code (ADGC);
    c. Waste Management Guidelines for Health Care Facilities (NSW Health, August 1998); and
    d. National Guidelines for Waste Management in the Health Care Industry (National Health and Medical Research Council (NHMRC), March 1999).

2. Several safeguards that are already in place should be reviewed and revised to reflect the proposed increase in processing capacity,

3. All employees should be trained on the environmental safeguard procedures,

4. All employees should be provided with appropriate personal protective equipment,

5. Current bunding provided at local process points and around buildings needs to be assessed and modified to contain 58,860 L of firewater,

6. All unloading operations should be conducted within the building.

6.18.9 Conclusions

The ground level concentrations for a worst case event were found to be significantly below published data on infectious doses for pathogens at residential areas. The published data has been used in several previous similar PHAs that were approved and are operating effectively. The published data was referenced from studies undertaken by the Research Triangle Institute on behalf of the US EPA.

Several scenarios were analysed including failure scenarios which found that the process is inherently safe and even if a high steam pressure event occurred, the majority of the pathogens would have been destroyed before this occurred due to the high pressure and temperature inside the autoclave.

Consequence estimations were conducted as due diligence and showed there would be negligible risk to the residential community or nearby industrial/commercial premises.

The Preliminary Hazard Analysis has found that the operation of the proposed development meets the criteria laid down in HIPAP 4 *Risk Criteria for Land Use Safety Planning* and would not cause any risk, significant or minor, to the community. Furthermore, the site's proposed operations are not an offensive or hazardous industry based on applying the Department's guidelines.

Based on the conclusions drawn from the PHA, it is clearly evident that the proposed development meets all the safety requirements stipulated by the Department and hence would not be considered to be an offensive or hazardous development. The development as proposed would result in no increase in hazards to surrounding land uses. The autoclaving process is able to operate with minimal use of chemicals and these results in further removal of potential hazards when compared to the other methods of operation of clinical waste destruction facilities.

6.18.10 Breakdown scenario

This matter is described in the PHA as well as other Sections of this EIS.

SWS has prepared and implemented an **Emergency Response Plan** and a **Pollution Incident Response Management Plan**. Both documents include proactive and reactive responses to many potential incidents/scenarios including breakdowns despite the fact that based on the regular service and maintenance of all components associated with the autoclaving activities, a breakdown is not a credible scenario.

However, in case everything failed within this facility, the clinical wastes collected by SWS will

be transported directly to a lawfully licensed facility that can accept such waste. This worst case scenario will ensure that clinical wastes are not accumulated on SWS site and they are transported off site within 24 hours. SWS has a contract with a company called SWSTS in Newcastle to treat this waste, if required.

6.19 PUBLIC SAFETY

The proposed new sites for stockpiling and composting activities are well segregated and fenced to prevent any unauthorised entry by the general public in addition to the fact that the there are no retail sales for the materials extracted and stockpiled on site.

Furthermore, all aspects associated with the application of SEPP 33 – Hazardous and Offensive Development have been addressed in the Risk Assessment which was undertaken as part of the Preliminary Hazard Analysis as well as the Statutory Context Section of this document. Below is some additional information associated with the management of small quantities of chemicals that are likely to be stored and handled on site.

6.19.1 Chemicals

Based on the information supplied by the applicant there are only small quantities of chemicals to be kept on site. They are all kept in a secure and safe place and stored in accordance with current NSW statutory requirements and codes of practice.

The PHA included a list of Dangerous Goods stored on site. Whilst we believe that no clinical waste will be stored on site since it will all be processed on the same day it is received we have included a copy of Table 3-1 of the PHA in **Table 6-12** below for completeness.

Table 6-15: Dangerous Goods currently stored on site

Table 3-1: Dangerous Goods Currently Stored on Site

Dangerous Goods Class	UN Numbers	Capacity	Storage Type
Class 6 Division 6.2	3291 PGIII	2000 kg	Roofed store
Compressed Natural Gas	1971	6,000 litres	Outside at SE end of site

The quantities of chemicals to be stored on site due to the increase in waste processing will remain the same with current quantities.

The risks associated with the handling and storage of these chemicals are comprehensively addressed in the PHA. A copy of the PHA is included in **Appendix D.**

6.19.2 Potential Environmental Impacts

It can be confirmed with confidence that there is no adverse impact on human health or the environment as a result of storing and handling of chemicals on site mainly due to the fact that most of these chemicals are not considered hazardous nor have the potential for any risk associated with their handling. In addition, only small quantities are kept on site.

Furthermore, the regular service and maintenance adopted by the management of the facility is another extremely important factor in reducing risks associated with the handling and storing of chemicals on site.

This conclusion was confirmed during site inspections by government authorities and environmental consultants.

The proposed development does not alter the status of the mitigation measures implemented on site to ensure that these chemicals will have no potential harm to human health and the environment.

Therefore, no additional mitigation measures are required.

6.20 RESOURCES

We understand that at this stage the sites proposed for stockpiling and composting activities will be used for their intended proposed purpose only, no other resources will be investigated or assessed at this stage. However, if the applicant wishes to investigate other options for the use of site resources, formal relevant assessments will be required.

6.21 REHABILITATION

Based on the previous uses of the site, proposed development and the current land use zone as well as the fact that no soil disturbance will occur, rehabilitation of the site is not required and will not be included in the assessment. However, if future major changes to that particular industrial/commercial area occur, then relevant State and Local Government legislation will apply to address any rehabilitation matters, if required.

6.22 EUROPEAN AND ABORIGINAL CULTURAL HERITAGE

Despite the fact that we believe that there are no matters relating to European or Aboriginal heritage relevant to the proposed site or the development proposal, we undertook the assessment/investigation outlined below to provide the authorities with additional confidence that in fact there are no heritage matters for consideration.

It was considered appropriate to review whether there are any Heritage-related issues associated with the site or adjacent sites that are in Blacktown Local Government area. Based on Schedule 5 – Part 1 Heritage items of Blacktown Local Environmental Plan 2015 (BLEP) titled *"Environmental Heritage*"; it is clearly evident that there are no sites or objects of heritage

values found or identified within or adjacent to the site. The closest sites of any heritage values are located in the adjacent suburbs of Prospect (East of Arndell Park) and Bungaree (West of Arndell Park) with a distance of several kilometres from the site.

A search of the NSW Office of Environment and Heritage's Aboriginal Heritage Information Management System provided the results included in **Figure 6-11**. The search included both 50 and 200 m radius.

Figure 6-11: Results of the AHIMS search conducted on 24 March 2018

SWS01 - AHIMS Search with 50 m radius from the site

Office of Environment & Heritage

AHIMS Web Services (AWS)
Search Result

Purchase Order/Reference : SWS 01
Client Service ID : 335515

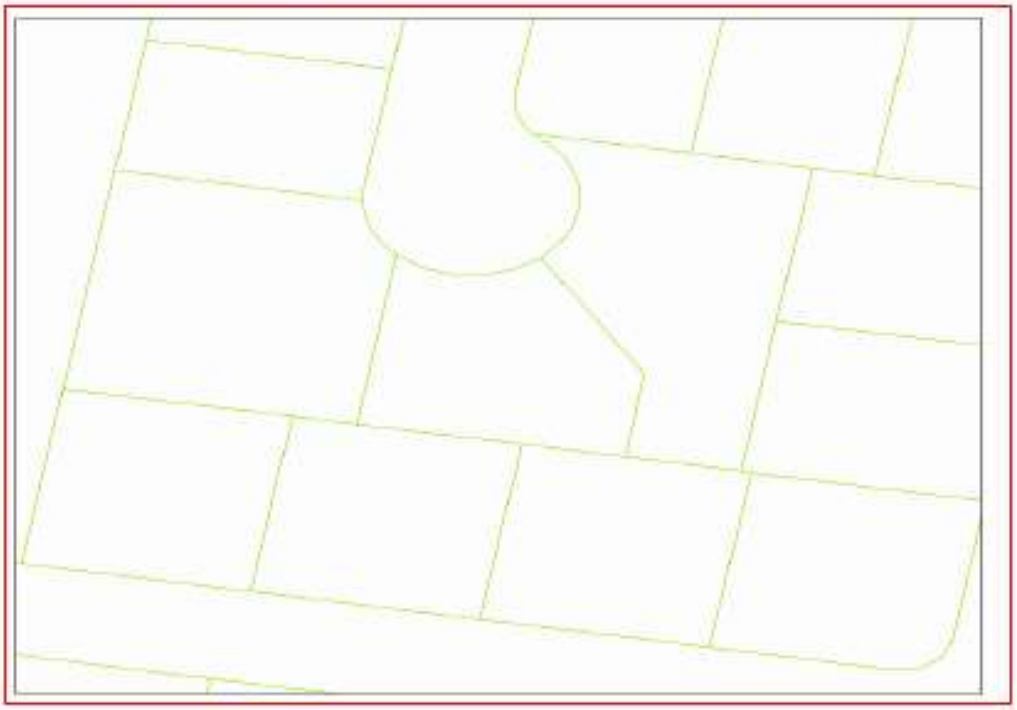
Nicolas Israel
63 Johnson Avenue
Seven Hills New South Wales 2147
Attention: Nicolas Israel
Email: 20nicolas15@gmail.com

Date: 24 March 2018

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 14, DP:DP786328 with a Buffer of 50 meters, conducted by Nicolas Israel on 24 March 2018.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

SWS02 - AHIMS Search with 200 m radius from the site

Office of Environment & Heritage

AHIMS Web Services (AWS)
Search Result

Purchase Order/Reference : SWS02
Client Service ID : 335516

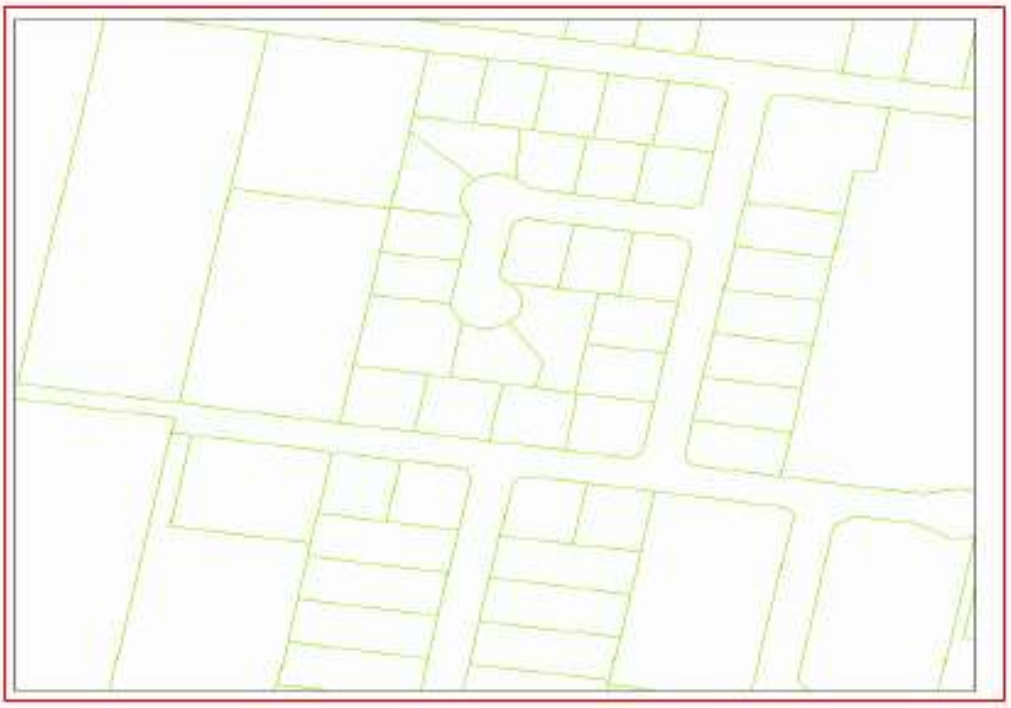
Nicolas Israel
63 Johnson Avenue
Seven Hills New South Wales 2147
Attention: Nicolas Israel
Email: 20nicolas15@gmail.com

Date: 24 March 2018

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 14, DP:DP786328 with a Buffer of 200 meters, conducted by Nicolas Israel on 24 March 2018.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

6.22.1 Mitigation Measures Implemented

Since no items of heritage significance were identified within or adjacent to the development site, no mitigation measures have been implemented and none are required.

In the event that Aboriginal artefacts are located within the development area during any future excavations of the site, all works in that area would cease immediately and the NSW Office of Environment and Heritage would be notified to seek advice on the best way to proceed.

6.23 INDEPENDENT AUDIT

As requested by the Department in its letter of 16 January 2018, an Independent Audit was undertaken by Australian Workplace Management. The audit was focused on the Department's scope of works specified in the letter as "*results of an independent audit of the operation of the existing facility against the conditions of all development consents and all Environmental Protection Licences in force in respect of the existing facility to ascertain the baseline of the site".*

This 'Scope of Work' necessitated review of all relevant conditions and obligations in relation to the requirements mentioned above within the Environment Protection Licence 20233; issued 03.09.2013 and the Blacktown City Council Development Application, Determination Number 11-1642 23.04.2012 and 12-1124 13.09.2012. We understand that 12-1124 was not acted upon by the applicant. We are aware of an Environment Protection Licence No 12609 issued on 27.11.2016 held by State Waste Services, relating only to the transport of clinical waste.

The methodology used in this case included the following steps:

- Conducts a preliminary meeting with SWS management
- Conduct a preliminary meeting with the environmental consultant
- Conduct a site inspection
- Collate all relevant documents including Development Consents, Environment Protection Licences, operational procedures, data collections, records keeping, incoming and outgoing waste data, etc.
- Review all relevant documents
- Review all raw data collected for the most recent three (3) months
- Review comprehensively a randomly selected sample
- Determine baseline data including non-compliances
- Conduct a final closing meeting with SWS and environmental consultant
- Prepare this report including findings and recommendation

As a result of various visits, examination of records, tracking and tracing of source documents and documents from outside providers that provides services to the facility, findings are as follows.

- A sample was taken of 20% of the Facilities performance over the recent three months. This period covered June, July and August 2018.
- Extensive reconciliations were performed covering incoming waste, compared with outgoing waste. Receival production and disposal data was reconciled with the following variations:
  June – .06%
  July – 1.68%
  August – .04%

The sample period is considered to be the high point of the annual clinical waste producing period.

Based upon the data presented and reviewed it is evident that State Waste Services are operating within the current limit of 650 tonnes per year, based upon the sample reviewed.

In relation to bins, the daily input was within the limit specified within the conditions of DA-1642.

Upon examination of input weights, production activity and records from Suez and Dial a Dump Industries and performing a reconciliation of monthly activity, including the consideration of month end production carry over, **it is my opinion that the data recorded and presented to me accurately reflects the current operational activities of State Waste Services and establishes the baseline of the facility.**

6.24 CUMULATIVE IMPACTS

As part of determining the potential cumulative impacts of the proposed development, a consideration of the existing ambient conditions of these environment related aspects in addition to any developments proposed to be established in the vicinity of the site. The Department's data bases associated with that area were interrogated to determine if there was any proposed development being considered in close proximity of the site and the potential impacts of these developments that may contribute to the existing ambient status of the environment. Similarly, Blacktown City Council data bases were also interrogated.

Based on the above searches, we were unable to identify any development that is likely to have a significant environment related impact, in the vicinity of the site, which may have a contribution to the existing ambient status of the environment. Furthermore, based on the assessments undertaken for this development, it has been demonstrated clearly that the development has no adverse impact or potential impact on the environment or human health.

Notwithstanding the above, we consider it appropriate to include the potential cumulative impact in the form of a table for completeness. **Table 6-16** includes the potential cumulative impacts from the proposed activities.

Table 6-16: Summary of Cumulative Impacts

Aspect	Existing	Proposed	Cumulative	Impact
Air	Air quality monitoring indicates that on occasions there are high levels of odours in Eastern Creek and surrounding areas including Arndell Park. These odours are garbage like odours since they are confirmed by authorities and individual to be generated from the Eastern Creek Waste Management Facility Existing background levels of dust are in the middle range for that area based on the EPA's air quality monitoring program	Based on the air dispersion modelling, the proposed activities will generate negligible odour emissions compared with these existing background levels at these occasions. Also all odour emissions comply very easily with current EPA guidelines at all potentially sensitive residential receivers There are no emissions of dust at any stage of the process since all waste materials are stored in double bags and tipped directly into the steel hopper/bin which in turn is bagged and sealed. Furthermore, all processing activities are undertaken inside the building in well controlled environment	Under normal circumstances, there will be negligible change to existing background odour levels. Under worst case scenarios where the background odour levels are high, there will be even much smaller change to the cumulative values Cumulative impacts for air emissions were included in the Revised AQIA in accordance with the EPA's guidelines titled: *"Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales – DECC – August 2017*". In particular, Section 5 of the above guidelines provides details of the approach to follow when considering existing ambient/background air quality. This has been used in thousands of similar assessments within NSW and has been considered to be adequate. There will be no change to the existing background dust levels since there are	Insignificant Insignificant/Nil

			no additional dust emissions as a result of the proposed activities	
Noise	Existing background noise levels appear to be at or higher than the levels specified in current NSW (EPA and Council) specified criteria	Based on the qualitative noise assessment undertaken by very highly experienced consultant and the fact that no additional noise sources are proposed as well as that all processing activities are undertaken inside the building, noise that is considered to be higher than existing background noise level is unlikely to be generated from the proposed activities	Based on the above, the cumulative impact is likely to be no different from existing background noise levels	insignificant
Water	Existing water quality in nearby waterways is already medium to poor	The quality of water generated by the proposed activities is likely to be better than what is the current water quality found in nearby waterways, if there was a need to discharge such water to the water. However, the site is fully sealed and concreted and only rainwater is likely to be discharged from the parking area. The building where all processing activities are undertaken is fully sealed, concreted and bunded to prevent any spills or leaks from leaving the building. There will be nil discharge of water from any processing activity	The proposed activities will have no cumulative impact on any waterway since all wastewater generated through the process will be treated and discharged to sewer in accordance with existing Trade Waste Agreement with Sydney Water Corporation	insignificant

		associated with the proposed activities		
Waste	The quantity of clinical waste generated within Sydney Metropolitan Area and NSW is already relatively high	The quantity of waste generated by the proposed activities is reduced significantly in volume after treatment from before treatment	The proposed activities are likely to reduce the quantities of waste being disposed at landfills by reducing the volume of waste received on site significantly. Cumulative impacts for waste are not considered to be of concern since the proposed activities are consistent with the EPA's legislation, guidelines and strategies. In particular, the EPA's "*NSW Waste Avoidance and Resource Recovery Strategy 2014-2021*" (Strategy) confirms that recycling and resource recovery are very high on the hierarchy. The vision of the Strategy is "*The primary goal of this strategy is to enable all of the NSW community to improve environment and community well-being by reducing the environmental impact of waste and using resources more efficiently. Using resources efficiently and keeping materials circulating in the productive economy can also help to create jobs and grow the NSW economy*".	Positive
Traffic	The increase of number of daily vehicle movements for the	The existing traffic on Kenoma Place and surrounding streets within the	Cumulative impacts for traffic were considered by the Traffic engineer in his	Insignificant

	proposed activities is very small compared with the existing vehicle movements	industrial/commercial area includes hundreds of light and heavy vehicle movements every day	Traffic Impact Statement and found that the traffic generated by the development has insignificant impact on the existing traffic. Thousands of similar assessments have been previously considered to be adequate by NSW authorities including the EPA and Councils, and as a consequence there should be no concerns in relation to this development. The cumulative impact will have no noticeable change to the existing impact	

The proposal is not considered to have a negative cumulative impact on the locality. There are no other cumulative impacts identified.

In summary, when reviewing all the positive outcomes from the proposal to the overall community of NSW and in particular within Sydney Metropolitan Area, we believe that the benefits outweigh by far any potential minimal impact on the surrounding environment. The applicant will be happy to negotiate appropriate pollution reduction programs to ensure that the EPA's, Blacktown City Council environmental objectives are achieved by mutually agreed environmental programs.

7. MITIGATION MEASURES, MANAGEMENT AND COMMITMENTS

As previously stated, the proposed activities are the same as the existing and already approved activities. There will be no changes to the existing structures including the already installed and operating plant, equipment and machinery. The only changes are the small increase to the number in vehicles used to collect the clinical waste from the sources they are generated.

On that basis, existing and already implemented mitigation measures need only to be confirmed that they are sufficient to accommodate for the increase in waste processing.

All new vehicles must be fitted with suitably and appropriately designed mechanisms to ensure that they comply with current NSW legislation from all aspects including safety, emergency incidents, health and environment. As a minimum, these vehicles must be fully compliance with the NSW EPA, the RMS, NSW Health requirements as well as any other additional requirements imposed by the Department, if any.

Below is a list of mitigation measures that are already implemented on site and will be strengthened by more monitoring and scrutinising by the proponent to ensure that all operations are undertaken in the most efficient and competent manner without compromising the health and safety of management, employees and contractors. These measures will be expanded to cover all vehicles and all operating hours.

In addition, based on the latest assessments as part of the preparation of the EIS, there were some non-mandatory mitigation measures recommended by the technical experts. These are also included below.

7.1 MANDATORY MITIGATION MEASURES

A Transport Incident Management Strategy was recommended by the RMS during the consultation process. A Transport Incident Management Strategy was development by Stanbury Traffic Planning in collaboration with relevant consultants. This strategy should satisfactorily inform the preparation and implementation of a suitable future Transport Incident Management Plan for the proposal.

The proponent (including employees and contractors) should refrain from disposing of unprocessed domestic and office waste into the processed waste bin to reduce potential odour generation further as this odour emission point source could become a great contributor to the overall odour emissions.

All clinical waste should be transported in accordance with Waste Management Guidelines for Health Care Facilities (1998) issued by the Department of Health.

All clinical waste should be transported in vehicles or containers dedicated exclusively for that purpose and have securely fitting lids to prevent spills at all times.

Vehicles being used for transporting or containing clinical wastes should carry a suitable clinical waste spill kit.

The spent steam should be diverted, by sealed piping, from being released into the atmosphere and fed into the dedicated clean water tank for re-use.

All loading, unloading and processing of clinical waste should only occur within the nominated hours to ensure that any potential for noise generation is limited to the approved hours. This measure should ensure that noise is not audible outside the site's boundaries above the existing background noise levels generated by the surrounding industrial and commercial activities.

The water stored in the water tank as part of the odour mitigation measures should be replaced on a regular basis at least every six months to ensure that the water is not saturated with odour which could be re-emitted into the atmosphere through the two small openings. This measure is not of a great impact on the overall odour emissions but it would have a contribution to the reduction of odour emissions from the site into the surrounding environment.

All loading and unloading of clinical waste bins should continue to be undertaken within the building.

All clinical waste received on site should be treated daily. No clinical waste should be stored on site unless in an emergency.

All existing and new employees and contractors must be trained appropriately and provided with suitable Personal Protection Equipment to minimise the potential for any health-related implication.

The existing bunding installed for the building should be inspected regularly and its integrity confirmed.

7.2 NON-MANDATORY (OPTIONAL) MITIGATION MEASURES

An odour elimination technology system with at least 50%-90% odour reduction efficiency could be installed in the water tank to reduce odour emissions from this odour generating source. This system, if operated at only 50 % efficiency will assist in slightly reducing the odour emissions at all neighbouring commercial/industrial properties with further odour reductions at all residential receptors. The recommended system details are included in **Attachment 5** of the AQIA. Based on the manufacturers' specifications, this system can provide up to 90% odour reductions, if operated efficiently.

7.3 SUMMARY OF CONTROLS AND MITIGATIONS MEASURES

Despite the fact that existing mitigation measures have been implemented on site effectively and efficiently in minimising the potential of impacts on human health and the environment for over five (5) years without any concerns or complaints, we have summarised these mitigation measures in **Table 7-1**.

Table 7-1: Summary of Existing and Proposed Mitigation Measures

Aspect	Potential Impact	Existing Controls	Proposed
Air	Very low potential of odour generation	All activities are undertaken inside an enclosed building Potential odours generated by the autoclave steam is discharged to a water tank rather than directly to atmosphere All collected wastes are kept in the doubled bagged bins and all bags are sealed on collection All wastes unloaded in the steel processing bin are sealed inside a heavy duty plastic liner All empty bins should be cleaned immediately after being emptied to minimise potential odour emissions in the case there was a breakthrough	In addition to maintaining the existing mitigation measures, the following non-mandatory measures should be considered: Increase the frequency of re[;acing the water tank to avoid over-saturation of water which may lead to odour generation Consider the installation of heavy duty curtains on the main roller door near the processed waste skip bin Refrain from disposing domestic putrescible waste (food scraps) inside the processed waste skip bin
Noise	Construction noise is nil Operational noise is considered to be insignificant Traffic noise is very low since	No construction activities are required all activities are undertaken during normal approved hours and inside the enclosed building All machinery used on site are relatively quiet in nature All machinery have been previously approved by Blacktown Council since they were considered to have very low noise levels All vehicles are relatively new, well maintained, and fully compliant with NSW noise emission criteria and Australian Design Rules. These vehicles will operate during normal approved hours	Existing mitigation measures are sufficient in managing noise emissions from the existing and proposed activities. No additional mandatory mitigation measures are required since no additional noise sources are proposed Regular maintenance of vehicles to be continued Avoid long duration idling on site
Water	Impact on stormwater is very low	Existing approved stormwater management is working effectively to prevent water pollution	No additional mitigation measures are required since the existing ones are performing really well

	Impact on groundwater is nil Impact on sewer system is negligible	All active working areas including car parking and manoeuvring are fully concreted and sealed without the need for construction activities Trade waste agreement with Sydney Water Corporation is sufficient for the proposed increase in the generation of non-clean water	
Waste	Waste generated on site is of low impact	Waste is made of mostly domestic nature except for the processed waste which is classified as General Solid Waste,	No additional mitigation measures are required since the existing ones are performing really well
		Waste generated on site is separated into recyclables and non-recyclables.	
		All wastes including domestic and processed are removed promptly of site to reduce the potential impact of over-accumulation of wastes	
		All clinical and related wastes are treated on the same day they are received to prevent the generation and potential emissions of odours, dust and pathogens.	
Risks/Hazards	Very low	No incidents have occurred and no complaints have been received due to the well maintained equipment, low quantities of chemicals stored on site, regular service & maintenance of all equipment operated on site have been demonstrated to be adequate in preventing any potential for spills, incidents or the generation of hazardous events	No additional mitigation measures are required since the existing ones are performing really well

Human Health	Very low	Potential impacts on employees, contractors or the public is possible from air, noise and waste related activities. However, these activities have been demonstrated to be of very impacts. Previously listed Implemented mitigation measures are adequate in reducing potential impacts on human health	No additional mitigation measures are required since the existing ones are performing really well
Traffic & Transport	Very low traffic impact	Existing traffic management practices are adequate to control potential impacts from the traffic associated with the	No additional mitigation measures are required since the existing ones are performing really well

		traffic movements to and from the site. Adhering to designated travelling routes is extremely important to prevent potential impacts on local traffic	

7.4 ADDITIONAL LIST OF COMMITMENTS

Below are additional commitments that were considered obvious to the proponent and hence were not included in the previous documentation.

- Comply with all conditions of the Development Consent, when issued,
- Comply with all conditions of the existing Environment Protection Licences and any amendments, if any,
- Comply with the provisions of the Environmental Planning & Assessment Act and its subordinate Regulations,
- Comply with the provisions of the Protection of the Environment Operations Act and its subordinate regulations,
- Comply with the requirements of Work Health & Safety Act and its subordinate Regulations,
- Comply with all other statutory requirements, where relevant,
- A fence along the perimeter of the site is installed except for the entry/exit where a gate is installed,
- A landscaping area at the front will be maintained by the proponent in accordance with Council requirements and any additional requirements imposed by the Department,

7.5 SITE MANAGEMENT PLANS

Since the establishment of the facility, several management plans have been developed and implemented on site. These plans include the following:

- Emergency Response Plan
- Pollution Incident Response Management Plan
- Regular Equipment Maintenance Schedule
- Regular Service Schedule

It is evident that the above management plans do assist greatly in reducing the potential impacts on human health and the environment.

8. PUBLIC NOTIFICATION AND CONSULTATION

8.1 GENERAL

Consultation with government departments and the local community plays an important role in ensuring all potential environmental impacts are evaluated. The consultation process provides the opportunity to identify and prioritise issues. Key aspects identified through both the government and community consultation process are addressed in varying degrees throughout this report.

The three (3) items listed are considered to be extremely important in the consultation process for most proposals included this one:

- Liaison with relevant local, state and federal government authorities regarding the proposed development and requirements of the report;
- Consultation with relevant stakeholders including community and industry in the vicinity of the subject site; and
- Compilation of issues of concern raised and outcomes of any meetings undertaken during the consultation process.

8.2 GOVERNMENT CONSULTATION

The proponent has undertaken consultation with relevant local, state and federal Government agencies as part of the preparation of the Secretary's Environmental Assessments Requirements (SEARS). The key agencies that the applicant consulted include:

- The Department of Planning and Environment (Department);
- The NSW Environment Protection Authority (EPA);
- The NSW Roads and Maritime Services (RMS);
- Blacktown City Council (Council).

Previous inspections by Government employees revealed that the site is operated in a competent and efficient manner. All environmental mitigation measures installed on site are operated in a competent and effective manner.

Furthermore, following an advice from the Department as a result of a meeting with relevant staff, the proponent has undertaken further consultation with the above Government Agencies in August 2017.

8.3 OUTCOME OF RECENT GOVERNMENT AUTHORITIES' CONSULTATION

Despite the act that consultation with relevant Government Authorities was undertaken as part of the preparation of the SEARs and following recent discussions with the Department of Planning and Environment, it was determined that further consultation with relevant Government Authorities is required.

Formal communications with the authorities referred to in 1.2 was established to seek any additional comments they may have.

The formal consultation was undertaken in September 2017. **Table 8-1** includes the contact details of the Government Agencies consulted as well as The Department's contact person.

Table 8-1: SEARs Government Authorities Contact list - Consultation

AUTHORITY	REFERENCE	DATE	SIGNATURE	CONTACT DETAILS
Department of Planning & Environment	SSD - 6761	1/12/2014	Chris Ritchie	Kelly.mcncol@planning.nsw.gov.au GPO Box 39 Sydney NSW 2001
Blacktown City Council	MC -14-1258	13/11/2014	Judith Portelli	council@blacktown.nsw.gov.au PO Box 63 Blacktown NSW 2148
Environment Protection Authority	EF13/4830 Notice No=1526273	14/11/2014	Greg Thomas	info@environment.nsw.gov.au PO Box A290 Sydney South NSW 1232
Roads & Maritime Services	SYD14/01331	17/11/2014	Angela Malloch	Development.sydney@rms.nsw.gov.au PO Box 973 Parramatta NSW 2150

Evidence of the communications between the applicant's consultants and the Government Agencies as well as the community is included in **Appendix Q**.

8.4 COMMUNITY CONSULTATION

Due to the fact that the facility has been operating at the same place and under the same conditions for several years now without any formal complaints as they are in continuous compliance with their Development Consent and Environment Protection Licence conditions, and they have already established good relationships with neighbouring occupiers. Community consultation was conducted on an ad-hoc and informal manner to ensure that any issues of concern raised by these neighbours were addressed promptly. We understand that so far, no concerns were raised by any community member about the activities conducted on site.

As part of this EIS process, a program of targeted land owner consultation involving face to face meetings and discussions with potentially impacted landholders who work and/or reside within close proximity to the subject site boundaries and other interested parties, has been undertaken. No objections have arisen from adjoining property owners or from interested parties.

It was suggested that informal consultations continue to be undertaken between the applicant and nearby landowners to provide the opportunity for landowners to raise any concerns they

may have in future.

8.5 INTERNAL CONSULTATION

The site management has already established simple yet effective communication/consultation channels for an effective implementation of the overall environmental management system. Typical methods of communication that may suit the small size of the operation include meetings and notice boards and the use of tool box sessions which are highly effective. Currently, site management upholds existing environmental management systems, and are also utilising verbal communication as the most effective method, given the size of the site and its operations.

So far, the management has received only positive feedback from its employees and contractors about the overall environmental management on site.

8.6 OUTCOME OF RECENT COMMUNITY CONSULTATION

As previously stated, the site is surrounded by commercial/industrial premises and a number of nearby residential dwellings outside the industrial area.

The activities will be well shielded from the surrounding environment by the existing built environment such as the topography of the site, the fact that the activities will be conducted inside a building and within the surrounds of the high and large neighbouring commercial and industrial buildings.

In any case, based on our assessment during our inspections of the site and surrounding environment, the proposed activities are unlikely to have any adverse impact on any sensitive residential receptor under any adverse weather and operating conditions. Similarly, the proposed activities are unlikely to have any impact on the neighbouring commercial/industrial properties provided that the recommended mitigations measures are implemented and maintained at all times.

The closest potentially sensitive residential receptors are included in **Table 8-2** and shown in an aerial photo which is provided in **Figure 8-1**. These receptors were identified in accordance with the EPA's guidelines as part of the Air Quality Impact Assessment (AQIA). However, the closest neighbouring and potentially affected commercial/industrial receptors are included in **Table 8-3** and shown in an aerial photo which is provided in **Figure 8-2**.

Table 8-2: Closest Potentially Sensitive Residential Receptors

Receptor ID	Address	Lot & DP	Approximate distance to site boundary (m)	Easting	Northing	Elevation (m)
R1	170 Reservoir Road Arndell Park	Lot 201 DP 880404	1,100 E	305263	6258730	64
R2	61 Holbeche Road Blacktown	Lot 1 DP 832346	560 NE	304478	6259305	50
R3	92 Aliberti Drive Blacktown	Lot 63 DP 869788	500 NE	304386	6259319	50
R4	1 Mariko Place Blacktown	Lot 98 DP 869788	400 N	304142	6259408	49
R5	52 De Castella Drive Blacktown	Lot 242 DP 842110	690 N	303872	6259768	48
R6	15 Flemming Grove Doonside	Lot 10 DP 975002	1,140 NW	303188	6259965	44
R7	711 Great Western Highway Eastern Creek	Lot 1 DP 723384	1,980 W	301940	6258973	40
R8	47 Pikes Lane Eastern Creek	Lot 3E DP 436196	2,160 SW	301824	6258596	42
R9	50 Peter Brock Drive Eastern Creek	Lot 4 DP 1079897	1,370 S	303922	6257475	75

Table 8-3: Closest Neighbouring Commercial/Industrial Receptors

Receptor ID	Address	Lot & DP	Approximate distance to site boundary (m)	Easting	Northing	Elevation
R10	14 Kenoma Place Arndell Park	Lot 12 DP 786328	Immediately Surround Site NW	303883	6259092	53
R11	16 Kenoma Place Arndell Park	SP85841	Immediately surround Site W	303889	6259048	54
R12	21 Lidco Street Arndell Park	Lot 221 DP 786329	Immediately surround Site SW	303879	6259005	55
R13	23 Lidco Street Arndell Park	Lot 222 DP 786329	Immediately surround Site S	303918	6259007	54
R14	25 Lidco Street Arndell Park	Lot 223 DP 786329	Immediately surround Site SE	303953	6258994	54
R15	7 Kenoma Place Arndell Park	Lot 15 DP 786328	Immediately surround Site NE	303961	6259049	53

SWS have concluded a round of formal Community Consultation (door knocking and face to face discussions) in late May 2017 in accordance with the Department's requirements. **Table 8- 4** includes an outline of the consultation undertaken by the management of SWS and their consultants. The outcomes of the consultation, issues raised by the community and actions taken by SWS to address these issues are also included.

Figures 8-1 and 8-2 show also the locations of businesses and individuals included in the consultation to give the Department, Council and other stakeholders a better understanding of the areas covered in the community consultation program undertaken by SWS. This face to

face consultation was very informative for all parties to gather information on what the community concerns are and their relevancy to the proposed development.

Table 8-4: List and locations of all businesses and individuals consulted in Late May 2017

Site No	Contact Details	Location	Issues Raised	Actions Taken
1	Name Withheld	Rainsmart - 25 Lidco Street, Arndell Park Adjacent to SWS site	Manager present - None	Nil We have offered to receive feedback and comments.
2	Name Withheld	Eastern Creek Smash Repairs – 5 Kenoma Place, Arndell Park 29 m to SWS site	Manager present - None	Nil We have offered to receive feedback and comments.
3	Name Withheld	Waste Options – 7A Vangeli Street, Arndell Park 110 m to SWS site	Manager present - Reported some odours in the area from different sources – not related to SWS activities	Nil We have offered to receive feedback and comments.
4	Name Withheld	Hercules Plastics Pty Ltd – 14 Kenoma Place, Arndell Park 14 m to SWS site	Manager present - None	Nil We have offered to receive feedback and comments.
5	Name Withheld	Pratek Automotive Pty Ltd – 23 Lidco Street, Arndell Park Adjacent to SWS site	Manager present - None	Nil We have offered to receive feedback and comments.
6	Name Withheld	ForkServe Pty Ltd -12 Kenoma Place, Arndell Park 44 m to SWS site	Manager present - None	Nil We have offered to receive feedback and comments.
7	Name Withheld	Damon Diesel – 12 Vangeli Street, Arndell Park 45 m to SWS site	Manager present - Reported some odours in the area from different sources – not related to SWS	Nil We have offered to receive feedback and comments.

Site No	Contact Details	Location	Issues Raised	Actions Taken
			activities	
8	Name withheld	Metal Fabrication – 7 Kenoma Place, Arndell Park Adjacent to SWS site	Manager present - None	Nil We have offered to receive feedback and comments.
9	Resident	61 Holbeche Road, Blacktown 560 NE of SWS site	Resident present – None	N/A
10	Resident	92 Aliberti Drive, Blacktown 500 m NE of SWS site	Resident present – None	N/A
11	Resident	1 Mariko Place, Blacktown 400 m N of SWS site	Resident present – None	N/A
12	Resident	52 De Castella Drive, Blacktown 690 m N of SWS site	Cousin outside - received	N/A
13	Resident	15 Fleming Grove, Doonside 1,140 m NW of SWS site	Resident not in – No response received.	N/A

Note: Contact names are withheld for privacy reasons

Figure 8-1: Closest Potentially Sensitive Residential Receptors and Residents Consulted

Figure 8-2: Closest Neighbouring Commercial/Industrial Receptors

Notes: Arrows indicate locations of residents and commercial/industrial sites visited

As part of the consultation process, SWS provided all consulted parties with an update on the proposed development/increase in processing capacity, planning aspects, environmental performance and other related matters. SWS sought feedback and comments and provided full contact details to all parties to facilitate communication and receiving of feedback. All feedbacks received so far have been very positive especially from the local businesses as they believe that SWS's activities have helped the local business.

The above information is provided to the Department in good faith. However, this information should not be used in a manner that may compromise the privacy or safety of these individuals involved in the consultation.

8.7 CONCLUSION

It is concluded that the proponent has previously conducted community consultation despite the fact that there were no statutory obligations to do so. It was determined that the best approach was to continue on with the community consultation during the preparation of the EIS to visit and meet with neighbouring commercial/industrial property owners/tenants and residents identified in the Air Quality Impact Assessment as being the nearest potentially sensitive receptors. This approach continues to be implemented and was found to be effective in informing the community of any changes to the activities conducted on site and any potential impacts on human health or the environment.

Based on the community consultation conducted in late May 2017, none of those visited expressed any concerns about SWS current or proposed activities.

9. JUSTIFICATIONS FOR THE DEVELOPMENT

9.1 JUSTIFICATION

Detailed consideration of the environmental impacts of the proposal has been undertaken in the environmental impact assessment process and in the preparation of the EIS. In assessing the impacts of the proposed development, consideration has been given to social, economic and environmental matters.

As required by the SEARs this chapter of the EIS sets out the justification for the proposed development with regard to biophysical, economic and social considerations and with reference to the principles of ecologically sustainable development (ESD).

9.2 BIOPHYSICAL CONSIDERATIONS

Potential biophysical impacts associated with the proposed development have been assessed within the EIS. The assessment of the biophysical environment has included an air quality impact assessment.
The assessment of each of the elements has concluded that the proposal would not result in significant adverse impacts on the biophysical environment.

9.3 ECONOMIC CONSIDERATIONS

The proposal will not result in a negative economic benefit for the Blacktown LGA and wider region. The proposal will provide some increased economic activity with no perceptible impact upon the natural environment.

9.4 SOCIAL CONSIDERATIONS

The assessment of the social impacts associated with the proposed development has included consideration of traffic and access, socio-economic impact, and air quality. Suitable measures have been identified that would minimise and mitigate any social impacts arising as a result of the proposed development.

9.5 ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Background

The concept of sustainable development came to prominence at the World Commission on Environment and Development (1987), in the report titled *Our Common Future*, which defined sustainable development as:

> *Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*

In recognition of the importance of sustainable development, the Commonwealth Government developed a *National Strategy for Ecologically Sustainable Development* (NSESD) (Commonwealth of Australia, 1992) that defines ESD as:

> *using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased.*

The NSESD was developed with the following core objectives:

- enhance individual and community well-being and welfare by following a path of economic development that safeguards the welfare of future generations;
- provide for equity within and between generations; and
- protect biological diversity and maintain essential processes and life support systems.

In addition, the NSESD contains the following goal:

> *Development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.*

In accordance with the core objectives and a view to achieving this goal, the NSESD presents private enterprise in Australia with the following role:

> *Private enterprise in Australia has a critical role to play in supporting the concept of ESD while taking decisions and actions which are aimed at helping to achieve the goal of this Strategy.*

Clause 7 of Schedule 2 of the EP&A Regulation requires justification for the proposal having regard to biophysical, economic and social consideration, including the principles of ESD.
Clause 7(4) of Schedule 2 of the EP&A Regulation provides a definition of ESD relevant to the preparation of EIS documents:

> *(4) The principles of ecologically sustainable development are as follows:*
> *(a) the **precautionary principle**, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*
> *(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
> *(ii) an assessment of the risk-weighted consequences of various options,*
> *(b) **inter-generational equity**, namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,*

*(c) **conservation of biological diversity and ecological integrity**, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,*

*(d) **improved valuation, pricing and incentive mechanisms**, namely, that environmental factors should be included in the valuation of assets and services, such as: containment, avoidance or abatement,*

(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,

(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

The design, planning and assessment of the proposal have been carried out applying the principles of ESD, through:

- incorporation of risk assessment and analysis at various stages in the Proposal design, environmental assessment and decision-making;
- adoption of high standards for environmental and occupational health and safety performance;
- consultation with regulatory and community stakeholders; and
- optimisation of the economic benefits to the community arising from the development of the Proposal.

The proposal design takes into account biophysical considerations, including the principles of ESD as defined in clause 7(4) of Schedule 2 of the EP&A Regulation.

In addition, it can be demonstrated that the proposal can be undertaken in accordance with ESD principles through the application of measures to avoid, mitigate and offset the potential environmental impacts of the proposal and where relevant adaptive management would be implemented.

The following sub-sections describe the consideration and application of the principles of ESD to the proposal.

Precautionary Principle

Environmental assessment involves predicting what the environmental outcomes of a development are likely to be. The precautionary principle reinforces the need to take risk and uncertainty into account, especially in relation to threats of irreversible environmental damage.

A PHA was conducted to identify related risks and develop appropriate mitigation measures and strategies. Also, a Traffic Impact Assessment was undertaken which included a Transport Emergency Incident Plan.

The PHA considers off-site risks to people, property and the environment (in the presence of controls) arising from a variety of unexpected and potential hazardous events and conditions (i.e. equipment failure, human and non-human operator errors, other internal and external factors) from different activities and/or equipment. The PHA does not consider those risks from unexpected or potential events, or the risks associated with transport by vehicles to be of any significance.

The environmental assessments (qualitative and quantitative) prepared in support of the EIS, consider potential environmental impacts associated with the Proposal, including long-term effects to be insignificant. Findings of these specialist assessments are within the relevant appendices.

Measures designed to avoid, mitigate and offset potential environmental impacts arising from the Proposal are also described within this EIS.

The specialist assessments and PHA have evaluated the potential for harm to the environment associated with the Proposal. Assessment of potential short, medium and long-term impacts of the Proposal have been carried out during the preparation of this EIS on aspects of soil, surface water and groundwater, transport movements, air quality emissions, noise, heritage, visual character and socio-economics.

Due to the very low potential impacts on human health or the environment, a range of mostly voluntary mitigation measures have been recommended and will be considered by the proponent as components of the Proposal to minimise the potential for serious and/or irreversible damage to the environment, including operational controls, physical controls, the development of environmental management and monitoring programs (including regular inspections).

Where residual risks are identified, emergency management controls have also been considered.

Social Equity

Social equity is defined by inter-generational and intra-generational equity. Inter-generational equity is the concept that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations, while intra-generational equity is applied within the same generation.

The principles of social equity are addressed through:

- assessment of the socio-economic impacts of the Proposal, including the distribution of impacts between stakeholders and consideration of the potential socio-economic costs of climate change;
- management measures to be implemented in relation to the potential impacts of the Proposal on water resources, heritage, land resources, agriculture, noise, air quality, ecology, transport, hazards and risks, greenhouse gas emissions, visual character and socio-economics (**Section 7**);

- implementation of environmental management (Sections 4 and 7) to minimise potential environmental impacts (which include environmental management covering the Proposal life); and
- implementation of biodiversity offsets during the life of the Proposal to compensate for potential localised impacts that have been identified for the development.

The proposal would benefit current and future generations through the generation of employment and local expenditure. The proposal would also provide stimulus to local and regional economies and provide reduction in landfilling space required to be reserved for future generations, thus contributing to future generations through good management, social welfare, amenity and infrastructure. The proposal will also protect the health and amenity of humans by completely treating clinical waste to a level that is acceptable by the relevant authorities.

The proposal incorporates a range of operational activities to minimise potential impacts on the environment and the costs of these measures would be met by SWS.

Conservation of Biological Diversity and Ecological Integrity

The 1992 United Nations Earth Summit defined "**biological diversity**" as "the variability among living organisms from all sources, including, 'inter alia', terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes **diversity** within species, between species and of ecosystems.

For the purposes of this EIS, ecological integrity has been considered in terms of ecological health and ecological values.

The proposal area is located within an industrial zoned area where all its neighbouring properties are highly commercialised and industrialised in line with the land zoning. There is hardly any ecosystem of value per se within or in the vicinity of the proposal's site. There are the odd trees here and there but there is no significant flora or fauna habitats that are present in that industrial land zone area. If there were any fauna, they would have migrated to other areas as per their survival instinct. If there were any flora such as native plants and trees, they would have been removed to make space for the industrial and commercial facilities. There are some relatively newly planted native trees and plants as part of compliance with Blacktown City Council's tree preservation policy. In any case, due to the fact that the proposal does not require any construction activities for any equipment or structure, no flora will be affected.

In accordance with ESD principles, the proposal addresses the conservation of biodiversity and ecological integrity by proposing an environmental management framework designed to conserve ecological values, where practicable, after consideration of potential Proposal impacts as described in the sub-sections below.

Greenhouse Gas Emissions and Biological Diversity and Ecological Integrity

Natural ecosystems are considered to be vulnerable to climate change. Patterns of temperature and precipitation are key factors affecting the distribution and abundance of species (Preston and Jones, 2005). Projected changes in climate will have diverse ecological implications.

Habitat for some species will expand, contract and/or shift with the changing climate, resulting in habitat losses or gains, which could prove challenging, particularly for species that are threatened.

***Anthropogenic climate change* is listed as a key threatening process under the TSC Act**

In making its final determination to list anthropogenic climate change as a key threatening process, the NSW Scientific Committee (2000) found that:

1. The distribution of most species, populations and communities is determined, at least at some spatial scale, by climate.
2. Climate change has occurred throughout geological history and has been a major driving force for evolution.
3. There is evidence that modification of the environment by humans may result in future climate change. Such anthropogenic change to climate may occur at a faster rate than has previously occurred naturally. Climate change may involve both changes in average conditions and changes to the frequency of occurrence of extreme events.
4. Response of organisms to future climate change (however caused) is likely to differ from that in the past, because it will occur in a highly modified landscape in which the distribution of natural communities is highly modified. This may limit the ability of organisms to survive climate change through dispersal (Brasher and Pittock, 1998; Australian Greenhouse Office, 1998). Species at risk include those with long generations, poor mobility, narrow ranges, specific host relationships, isolated and specialised species and those with large home ranges (Hughes and Westoby, 1994). Pest species may also be advantaged by climate change.

A greenhouse gas assessment was not considered necessary for the proposal for the following reasons:

- The site is within a very highly industrialised and commercialised area without the presence of vulnerable species within or in the vicinity of the site,
- There are no changes to the already approved activities,
-
- The very low levels air emissions have insignificant quantities of greenhouse gases.

Measures to Maintain or Improve the Biodiversity Values of the Surrounding Region

A range of impact avoidance, mitigation and offset measures could be implemented for the Proposal to maintain or improve the biodiversity values of the surrounding region, if any, in the medium to long-term, if required.

A range of management measures would be implemented for the proposal to minimise impacts on flora, fauna and their habitats, if any exist within the site or its vicinity.

High frequency fire has the potential to impact on biodiversity by reducing vegetation structure, if any and resulting in a corresponding loss of animal species, if any on site.

High frequency fire is listed as a key threatening process for increasing greenhouse gases. Management measures have been and will continue to be implemented for the proposal to minimise the risk of fires and in doing so, would maintain or improve the biodiversity values of the surrounding region.

Valuation

One of the common broad underlying goals or concepts of sustainability is economic efficiency, including improved valuation of the environment.

Resources should be carefully managed to maximise the welfare of society, both now and for future generations.

In the past, some natural resources have been misconstrued as being free or under-priced, leading to their wasteful use and consequent degradation.

Consideration of economic efficiency, with improved valuation of the environment, aims to overcome the under-pricing of natural resources and has the effect of integrating economic and environment considerations in decision making, as required by ESD.

While historically, environmental costs have been considered to be external to Proposal development costs, improved valuation and pricing methods attempt to internalise environmental costs and include them within Proposal costing.

Furthermore, wherever possible, direct environmental effects of the Proposal are internalised through the adoption and funding of mitigation measures by SWS to mitigate potential environmental impacts.

In summary, when reviewing all the positive outcomes from the proposal to the overall community of NSW and in particular within Sydney Metropolitan Area, we believe that the benefits outweigh by far any potential minimal impact on the surrounding environment. The applicant will be happy to negotiate appropriate pollution reduction programs, if required, to ensure that the EPA's and Department of Planning & Environment environmental objectives are achieved by mutually agreed environmental programs.

10. RESPONSIBILITY

The General Manager is responsible for the implementation and maintenance of all relevant management plans throughout the relevant activities conducted on site. The General Manager may delegate the responsibility to other staff members who are appropriately trained to implement and maintain these management plans. The General Manager is also responsible for managing the day-to-day operations on site.

The current General Manager's details are:

Chris Liney
Ph: 1300 462 720
Mobile: 0448 484 848
Email: chris@statewaste.com.au
Physical address: 9 Kenoma Place, Arndell Park NSW 2148, or
Postal address: PO Box 7363 Baulkham Hills NSW 2153

The names of the delegated employees, if any nominated by the General Manager, should be included in the relevant sections of the management plans, when updated. In particular, the contact details of these employees should be included in the Pollution Incident Response Management Plan (PIRMP) to ensure smooth flow and prompt response of incident management.

The applicant's management will need to ensure that those coming onto the site have understood the relevance and objectives of all management plans relevant to their specific jobs and will carry out their activities in accordance with the requirements of these relevant management plans and the approved consent conditions, where relevant.

Having the full commitment of the applicant's management and staff, contractors and their staff is imperative for the high level of success intended from the use of these plans within the applicant's site.

11. TRAINING

The applicant's management recognises that training and awareness should be treated as an integral part of the implementation of the consent requirements and relevant management plans.

The applicant's management would provide appropriate and additional training to the Plant Manager, if it is considered necessary, as it will all depend on his previous experiences with similar duties. The training would include the implementation and maintenance of the consent requirements and relevant management plans to ensure that the Plant Manager is competent and confident in carrying out the duties and responsibilities associated with these requirements.

In addition, the training would include a session on undertaking prompt action to manage pollution incidents or potential pollution related matters in the case that a feedback was provided, an enquiry was made or a complaint was received. The prompt action is required to ensure that any potential impact to human health or the environment is minimised.

It is essential that the site management thoroughly understand the contents of the consent and be competent in the applicable legislation, and the environmental aspects and impacts of all operations and procedures.

Therefore, site management will determine the level of competency necessary for staff and contractors coming to site to ensure their environmental objectives and statutory responsibilities are met.

Training will need to be assessed on a periodic basis for staff while contractors would be assessed on a job-by-job basis. All relevant procedures should be discussed until a level of understanding has been reached and a degree of competency has been demonstrated by the staff member or contractor involved to the site operator's satisfaction.

Shortfalls could be addressed by specific on-site training. Updates and reviews should also be conducted in the case of complaints or after any changes in the consent conditions requirements, in particular, a change in site management, procedures, site operations or legislation.

12. CONCLUSIONS AND RECOMMENDATIONS

The proposed development relates to a waste management facility at 9 Kenoma Place, Arndell Park, and specifically processing medical waste. The proposal represents an increase from an already approved processing capacity of 650 tonnes to 3,000 tonnes per year. No physical works are proposed as part of this application. The proposed development has been assessed against the requirements of the Blacktown LEP & relevant State Environmental Planning Policies and is considered to represent a form of development that is acceptable.

The proposal is considered to be permissible within the zone and generally in keeping with the nature of surrounding rural environment. The proposal is considered to comply with relevant planning instruments and controls.

In relation to the SEARs, the following commentary is provided in response to each potential issue identified.

Key Issue	Requirement for Consideration
Strategic Context	*Justification for the proposal and suitability of the site for the development. Demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, development control plans, or justification for any inconsistencies. A list of any approvals that must be obtained under any other Act or laws before the development may be carried out.*
Comment:	*The proposed development will continue to be located in an appropriate locality that is close to clients, and arterials roads without impacting upon surrounding land uses. The proposal is permissible and can comply with all required planning instruments, guidelines and regulatory requirements.*
Air quality & odour	*Description of all potential sources of air and odour emissions. An air quality impact assessment in accordance with relevant EPA guidelines. Description and appraisal of air quality impact mitigation and monitoring measures.*
Comment:	*The air quality assessment has concluded emissions from the proposed developments will not exceed the prescribed standard, site characteristics mean that negligible impacts will arise on the nearest residential receptors.*
Noise & vibration	*Description of all potential noise and vibration sources during construction and operation, including road traffic noise. A noise and vibration assessment in accordance with relevant EPA guidelines. Description and appraisal of noise and vibration mitigation and monitoring measures.*
Comment:	*There are no sources of acoustic or vibration impact and so such additional consultant reports were not considered necessary.*
Soil & water	*Description of local soils, topography, drainage and landscapes. Details of stormwater and wastewater management. Details of sediment and erosion control. Details of water usage including water supply and licences. Assessment of impacts to surface and groundwater resources, flooding, impacts and impacts to groundwater dependant ecosystems. Description and appraisal of impact mitigation and monitoring measures.*

Key Issue	Requirement for Consideration
Comment:	*The subject site is not considered to be flood prone. The proposal is not considered to result in any impact on soils or surface & ground water. Adequate arrangements can be made for the supply of water to the site.*
Traffic and Transport	*Details of road transport routes and access to the site. Road traffic predictions for the development during construction and operation. Assessment of impacts to the safety and function of the road network. Details of any road upgrades required for the development.*
Comment:	*The traffic impact assessment concludes that the site and the surrounding road network and infrastructure can adequately cater for the proposed development.*
Waste Management	*Details of waste handling including, transport, identification, receipt, stockpiling and quality control. Measures that would be implemented to ensure that the proposed development is consistent with the aims, objectives and guidelines in the NSW Waste Avoidance and Resource Recovery Strategy 2014-2021.*
Comment:	*Adequate arrangements will continue to be maintained for the collection, storage and disposal of office based waste.*
Visual	*Impact assessment at private receptors and public vantage points.*
Comment:	*No construction is proposed as part of this application. No visual impacts will arise.*
Heritage	*Aboriginal and non-Aboriginal cultural heritage*
Comment:	*There are no heritage matters considered relevant to the assessment of this proposal.*

Adequate arrangements will be maintained for the provision of: vehicular access to and within the site, essential utilities, sewerage, waste and drainage. The site is located a suitable distance from residential receptors and is not anticipated to impact on the surrounding locality. On this basis, the subject site is considered acceptable for the proposed development.

The proposal is considered to not result in a negative economic impact in the locality or wider area and is therefore in the public interest.

Accordingly, it is recommended that the proposed development be approved subject to the imposition of appropriate conditions requiring compliance with relevant Codes of Practice, guidelines and regulatory requirements.

12.1 SECTION 79C EVALUATION

Based on discussions with relevant Government Departments, it was considered appropriate to include an evaluation of the proposed development against Section 79C of the Environmental Planning and Assessment Act 1979 to ensure that all matters required to be considered by the Department are fully addressed in this EAR. In this instance, it was determined that the most practical manner to undertake the evaluation is by tabulation as shown in **Table 12-1**.

"(1) Matters for consideration—general

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:"

Table 12-1: Section 79C Evaluation

Matters For Consideration	Comments
(1)(a)(i) any environmental planning instrument	The relevant Environmental Planning Instruments are included in **Section 5** The development satisfies the requirements of the EPIs The development is permitted in this land zone The development satisfies the aims and objectives of relevant EPIs The development complies with all relevant development standards included in the EPIs Several additional matters that were considered relevant in the EPIs have been addressed in this EIS The development is permissible in the context of the governing planning instruments and warrants approval given that the intent and purpose of the development consent remains the same. The quantity of processed materials will not exceed the proposed 3,000 tonnes annual limit The onerous nature of the other consent conditions and compliance requirements attached to the EPLs ensures that all the necessary safeguards are in place to protect the ecology, residential amenity and the environment.
(1)(a)(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved),	We are unaware of any proposed EPI or draft EPI that may apply for this development
(1)(a)(iii) any development control plan	Yes, BDCP 2015 is the relevant DCP The proposed development is consistent with BDCP 2015 The objectives of the LDCP 2015 are provided in this Section. The proposed development is consistent with the objectives of the BDCP 2015. The proposed development complies with all relevant development standards included in the BDCP 2015. The proposed development does require formal notification and consultation, however, we will accept the Department's advice on

	this matter All relevant additional or special provisions for the proposed development have been addressed in this EAR.
(1)(a)(iiia) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F	None
(1)(a)(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph)	Clause 92 associated with the NSW Coastal Policy 1997 is not applicable to the proposed development Clauses 93, 94 & 94A associated with Fire Safety and Temporary Structures aspects are better be determined by the Department, if considered relevant
(1)(a)(v) any coastal zone management plan (within the meaning of the Coastal Protection Act 1979)	Not applicable
(1)(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality	The site is located within a mainly industrial/commercial environment as stated in the site description section of this EIS rather than in an area of a particular scenic quality or natural landscape richness. The only potentially sensitive environment is the nearby waterways and residential zone to the North of the site. The development has been assessed against all potential environmentally related matters and found to be of none to very low impact on both the natural and built environment due to the minimal work required. The development has no adverse impact on the neighbouring properties. The proposed development is consistent and compatible with adjacent properties in the same land use zone IN1 The proposed development will have no adverse impact on views or vistas. Access to the site is via Kenoma Place and an access road/driveway as outlined above. The proposed development is unlikely to generate any additional traffic movements on hourly basis since there will be increase in the number of hours where the additional waste will be received and processed. The development will have no impact on the public infrastructure since it is contained within an area that will be segregated from any public area. There are no adverse impacts on existing utilities in the area. The soil quality will not be adversely changed in any way by the development since there will be no excavation or disturbance of soil as part of this development. The proposed development is unlikely to have any adverse impact

	on the local or regional air quality due to its intended end use and based on the comprehensive AQIA undertaken as part of the EIS. As outlined above, the proposed development has no adverse impact on the existing flora and fauna due to its nature, intended use and location. Waste generated on site will be minimal and mainly of domestic nature, however, the applicant will make available relevant waste bins for domestic as well as industrial waste just in case any waste could not be placed in the bin dedicated for domestic waste only. Natural ventilation and lighting will be promoted at all times to conserve energy and energy saving light bulbs are and will continue to be used in the building. The proposed development is unlikely to generate any offensive noise (as defined in the Protection of the Environment Operations Act 1997) that could be audible outside the boundaries of the site. The proposed development will comply with the noise criteria specified in the EPA's noise guidelines EPA Noise Policy for Industry. The proposed development will be located within a site with a high concreted fence around its perimeter except the strong gate and within the building which will be securely locked to prevent access by unauthorised people or being the subject of vandalism. There are no issues associated with economic benefits of the development and we have already committed to using local businesses for all our purchases and daily activities to ensure that the local economy is receiving the benefits from the development. All employees will be encouraged to use local businesses for their everyday consumables. In conclusion, we believe that the proposed development is likely to have positive rather than negative impacts on the environment and the community.
(1)(c) the suitability of the site for the development	The site is suitable for the development as outlined in this EIS in addition to the fact that the location, space allocated and nature of the development make it consistent with the objectives of the Industrial land zoning. The approved site is of a sufficient size to ensure that the treatment of clinical waste can effectively occur without disrupting any other nearby activities and is suitably distant from the residential zone and nearby waterways.
(1)(d) any submissions made in accordance with this Act or the regulations	We are unaware of any submissions made and we will be providing responses to any submissions received during the exhibition/consultation stage
(1)(e) the public interest	No adverse matters relating to the public interest arise from the development. The operations on-site have been operating in the public interest as it provides employment opportunities on-site and via associated industries.

	The local community have been consulted on more than one occasion as part of the Blacktown City Council planning process and the preparation of this EIS. So far we have had only positive feedbacks and full endorsement of the development.
(1)(f) Substantially the Same Development	The proposed development is substantially the same as the development previously approved by Blacktown City Council which was the consent authority at that time

The Department's assistance is therefore sought to modifying relevant conditions of the Development Consent to reflect the proposed developments as outlined in this report.

12.2 NEED FOR AND OBJECTIVES OF THE PROPOSED DEVELOPMENT

As already mentioned in the report, the development would include the implementation of mitigation measures, and management (including performance monitoring), to minimise potential impacts on the environment and human health.

The Socio-Economic Assessment indicates that the continuation of current activities and proposed activities would result in great contributions to regional and NSW output, and business turnover and household income.

As previously stated the development is needed to ensure that the NSW health service providers have alternative reliable and trustworthy clinical waste treatment facilities that provide incentive for cost and fees reductions rather than having a market monopoly through 1-2 treatment facility providers. Currently, there is only one option for the majority of clinical waste generators to rely upon for the collection and treatment of their clinical waste. By approving this proposal, these health service providers will benefit greatly in net saving.

It is expected that an incremental net benefit would eventuate as a result of the implementation of the development. This net benefit for all stakeholders is net from costs associated with potential environmental impacts and management measures for the development.

12.3 JUSTIFICATIONS FOR PROPOSED DEVELOPMENTS

- Since the commencement of normal operations at the site, there have not been any incidents associated with environmental aspects such as noise, water, air or waste;
- Since the commencement of normal operations on the site, the applicant has not received any complaint directly or indirectly about his activities;
- The proposed development could be considered as being of administrative nature only and will not require any physical work to be conducted on site;

- The proposed activities are exactly the same as the activities previously approved by the Council via the JRPP;

- The proposed development will not generate any additional activities on site but rather the same activities are being spread throughout greater number of working hours; and

- The proposed development remains unaltered and do not introduce new environmental considerations – **qualitative consideration**. The development maintain the same hours of operation, activities, plant & equipment, etc.

13. LIMITATIONS

Our services for this project are carried out in accordance with our current professional standards for undertaken environmental assessments and the preparation of Environmental Impact Statement (EIS). No guarantees are either expressed or implied.

This EIS has been prepared solely for the use of State Waste Services (NSW) Pty Ltd (SWS) as per our agreement for providing environmental services. Only SWS is entitled to rely upon the information provided in this EIS within the scope of work described in this EIS. Otherwise, no responsibility is accepted for the use of any part of the EIS by another in any other context or for any other purpose.

Although all due care has been taken in the preparation of this EIS, no warranty is given, nor liability accepted (except what is otherwise required by law) in relation to any of the information contained within this document. We accept no responsibility for the accuracy of any data or information provided to us by SWS for the purposes of preparing this EIS.

Any opinions and judgements expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal advice.

14. REFERENCES

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3 Protection of the Environment Operations (Waste) Regulation 2014

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APPENDICES

APPENDIX A – Site Plan and Elevations

APPENDIX B - Air Quality Impact Assessment

APPENDIX C - Traffic Impact Assessment

APPENDIX D – Preliminary Hazard Analysis

APPENDIX E – Secretary Environmental Assessment Requirements & Extension Letters

APPENDIX F – Existing State Waste Services Cleaning Protocol

APPENDIX G – Existing State Waste Development Consent Conditions and Modifications

APPENDIX H – Current State Waste Environment Protection Licences

APPENDIX I – Current State Waste Inspection Reports

APPENDIX J - State Waste Plant Waste Process and Related Documents

APPENDIX K – Current State Waste Water Cycle

APPENDIX L – Current State Waste Chemicals SDS and Photos

APPENDIX M – Manufacturers Bondtech Full Autoclave Specifications

APPENDIX N - Independent Audit Report – Australian Workplace Management

APPENDIX O - Samples of Daily, Weekly and Monthly Incoming Clinical Waste

APPENDIX P - Regular Service, Maintenance and Testing Reports for all Vessels, tanks, boiler, etc…

APPENDIX Q - Community and Public Authorities Consultation

APPENDIX R - Autoclave Registration Certification, Destruction Efficiency & Microbiological Testing Results